PART III – LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

Section J: LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

The following documents are attached hereto and made a part of this contract:

J-1 SECTION C STATEMENT OF WORK (SOW)

J-2 DATA REQUIREMENTS LIST (DRL)

J-3 DATA REQUIREMENTS DESCRIPTION (DRD)

J-4 IT SECURITY PLAN

J-5 SAFETY AND HEALTH PLAN

J-6 PERSONAL IDENTITY VERIFICATION (PIV) CARD ISSUANCE PROCEDURES

J-7 TASK ORDER PLACEMENT

J-8 SMALL BUSINESS SUBCONTRACTING PLAN/SDB TARGET APPROACH

J-9 TOTAL COMPENSATION PLAN

J-10 GOVERNMENT PROPERTY MANAGEMENT PLAN

J-11 ORGANIZATIONAL CONFLICT OF INTEREST AVOIDANCE PLAN

J-12 ACRONYMN LIST

J-13 LIST OF APPLICABLE DOCUMENTS

ATTACHMENT J-1 SECTION C STATEMENT OF WORK (SOW)

SECTION C - DESCRIPTION/SPECIFICATION/WORK STATEMENT

Software, Robotics, & Simulation Division (SRSD)
Simulation and Software Technology II (SST II)

The Contractor shall provide the item or services specified in Section B in accordance with Task Orders related to the following:

INTRODUCTION

This statement of work describes the effort necessary to provide simulation and software technology support to the JSC Engineering Directorate's Software, Robotics, & Simulation Division (SRSD), and its external customers. SRSD is responsible for developing and supporting simulation and Virtual Reality (VR) applications for Extra Vehicular Activity (EVA) training systems, robotics training systems, and engineering analysis; and developing situational awareness and planning software. SRSD is also responsible for providing engineering products and analysis in the areas of Orion flight software management, Vehicle System Management (VSM), automation and intelligent systems, and telerobotics and autonomous robotic systems for ground and space flight applications. SRSD supports the International Space Station (ISS) Program, the Orion Multi-Purpose Crew Vehicle (MPCV), the Training Systems for the 21st Century (TS21), and advanced programs for exploration. The contractor is responsible for providing simulation and software technology support to the SRSD for the tasks defined under the Scope below.

SCOPE

The contractor shall provide SRSD with space vehicle systems and software expertise, and simulation and software technology support in two major domains, (1.0) Simulation and Graphics and (2.0) Spacecraft Software. Within the simulation and graphics domain the contractor shall provide expertise in the fields of (1.1) Trick Simulation Math Models and Applications, (1.2) Simulation Products, and (1.3) Virtual Reality as detailed in the following sections. Within the spacecraft software domain the contractor shall provide expertise in the fields of (2.1) System Engineering and Integration, (2.2) Software Engineering Analysis Test Bed, (2.3) Guidance, Navigation, and Control Software Development, and (2.4) Advanced Robotics Software.

1.0 Simulation and Graphics

1.1 Trick Simulation Math Models and Applications

The contractor shall develop and maintain the Trick simulation math models including dynamic and kinematic robotic systems, spacecraft system models, manipulator/orbital dynamics, earth environmental models, contact dynamics models, and interfaces to numerous software systems and scene generation graphics capabilities developed at JSC. The contractor shall develop and support advanced kinematics and dynamic robotic simulations, space craft simulations, tools for engineering analysis, real-time human-in-the-loop/hardware-in-the-loop training simulations, and the associated documentation.

The Trick simulation applications vary widely and include batch (non-real-time), real-time, hardware-in-the-loop, human-in-the-loop, multi-process/processor, and multi-computer simulations using both Trick time-based and event-based scheduling mechanisms. The contractor shall develop Trick simulation applications which include full life cycle support including investigating, defining requirements, designing, prototyping, developing, testing, verifying, and documenting advanced simulation techniques for robotics and spacecraft systems. In performing these tasks, the contractor shall also develop and evaluate software requirements and software algorithms necessary to provide simulations of robotics systems, spacecraft subsystems (power, thermal, propulsion and life support), and integrated robotics and spacecraft environments.

The contractor shall perform facility-specific development and integration required to interface with flight hardware and software avionics systems. It is anticipated that multiple simulation and avionic facilities will share math models developed under this task; therefore the contractor shall follow modeling and simulation standards and data architectures to facilitate model sharing between simulations.

The Trick math models and simulation applications may be used for engineering analysis of robotic and spacecraft systems. The contractor shall develop analysis requirements, run analysis simulations, analyze data, and document the results of the analysis.

1.2 Simulation Products

1.2.1 Trick Simulation Environment

The Trick Simulation Environment is a set of software utilities and code generators which allow users to rapidly develop, integrate, and operate simulations based on the specific requirements of their application domain. The Trick core capabilities are defined as the run-time executive, user interfaces, code generators, and other simulation construction and operation support utilities. The contractor shall develop and maintain the Trick simulation environment core capabilities.

1.2.2 Dynamic Onboard Ubiquitous Graphics (DOUG)

The Dynamic Onboard Ubiquitous Graphics (DOUG) software package is a 3D viewing tool used for SSRMS and EVA planning and review and for situational awareness during SSRMS operations. DOUG is primarily developed to support the Virtual Reality Lab and is also used in multiple training facilities at JSC. The contractor shall continue development and maintenance of DOUG. The contractor shall develop innovative image generation algorithms and techniques, and interface these capabilities with existing off-the-shelf sensor and motion hardware.

1.2.3 General Use Nodal Network Solver (GUNNS)

GUNNS is a flow system modeling software package that combines nodal analysis and the hydraulic-electric analogy to simulate fluid, electrical, and thermal systems. It has sufficient compactness and fidelity to model these aspects of space vehicles in real-time. It has reusable components for system design and a Graphical User Interface (GUI) providing capability for rapid development, ease of maintenance, and cost savings. GUNNS is compatible with and optimized for the Trick simulation environment, but may be executed independently of Trick. The contractor shall develop and maintain GUNNS.

1.2.4 TrickHLA

The TrickHLA Simulation Interoperability package is software which uses the IEEE 1516 High Level Architecture (HLA) standard for interoperability and provides a Trick model Application Programming Interface (API) to allow users to quickly develop Trick based distributed simulations. The TrickHLA core capabilities are defined as support for the IEEE 1516-2000 and IEEE 1516-2010 standards, coordinated initialization between distributed simulations, user APIs, and example simulations. The contractor shall develop and maintain the TrickHLA simulation interoperability core capabilities.

1.2.5 MAGIK Simulation Maintenance and Development

The Manipulator Analysis Graphic Interactive Kinematic (MAGIK) simulation supports kinematic analysis for the Space Station Remote Manipulator System (SSRMS), the Special Purpose Dexterous Manipulator (SPDM), and other robotic systems. MAGIK is an interactive robotics simulation tool that provides 2D and 3D graphical user interfaces and displays for robotic analysis. The contractor shall develop and maintain the MAGIK simulation to meet the analysis requirements. The contractor shall integrate the flight system manipulator control system software, as supplied by the Trick simulation team, into the MAGIK software. The contractor shall also integrate the Advanced Graphics for Engineering Applications (AGEA) graphic simulation releases, as supplied by NASA, into the MAGIK simulation.

1.3 Virtual Reality (VR)

The field of virtual reality includes research, design, and development of VR state-of-the-art technologies and software. The contractor shall provide DOUG based VR training environments, including mission specific scene databases, for astronaut EVA training and robotic systems training. These environments include helmet mounted displays, wide-screen displays, motion and force feedback devices, mass handling robotic hardware-in-the-loop simulations, free-flyer hardware-in-the-loop simulations, and other sensor devices for motion tracking. The contractor shall integrate dynamic simulations into these environments for training and engineering analysis, and provide astronaut training session support.

2.0 Spacecraft Software

2.1 System Engineering and Integration (SEI)

The contractor shall support space vehicle system and subsystem managers in systems engineering and integration analyses, and in development of Flight Software. This work will include requirements assessment, architecture development, design analysis, trade studies and analyses, support of technical oversight activities and collaboration with program prime contractors, and with multiple vehicle systems and subsystems for life cycle implementation of vehicle hardware and software systems. The contractor will support system and subsystem managers in technical oversight activities including oversight of requirements, designs, verification plans, test data, certifications, system performance verification, integration and problem resolution, as well as collaboration with NASA Program and Project Offices.

The contractor shall perform systems engineering analysis by identifying

architectural driving requirements, trading architectural patterns that satisfy the requirements, performing functional allocations across the avionics components, and assessing contractor design and implementation against the reference architecture.

2.2 Software Engineering Analysis Test Bed (Kedalion)

The Software Engineering Analysis test bed is used for design analysis, evaluation of command & data handling, and other avionics integration software functionality. The contractor shall maintain the test bed and provide configuration management responsibilities, including documentation and property custodian duties.

2.3 Guidance, Navigation, and Control (GN&C) Software Development

The contractor shall perform tasks, which include (1) model and algorithm development, software integration, configuration management, issue tracking, and version delivery, (2) real-time hardware in the loop facility development, testing, and configuration management to support integrated testing of GN&C and avionics, and (3) test requirements development and documentation for support of GN&C software.

2.4 Advanced Robotics Software

Research and development in advanced robotics includes research, prototyping, design, and development of intelligent and/or autonomous robotic software systems and software in support of space operations, science, and exploration missions. The contractor shall analyze missions, tasks, and scenarios; develop software designs, requirements, and software algorithms necessary to provide intelligent robotics architectures, systems or subsystems; develop tools and environments; and develop effective human-robot interactive systems.

3.0 Quality Management

JSC has SAE AS9100 registration and intends to maintain it. The contractor shall perform all work on-site in accordance with the JSC Quality Management System and shall ensure work involving this contract performed off-site is in accordance with SAE AS9100. On-site quality assurance functions, responsibilities, and tasks will be specified, if required, per Task Order.

4.0 Applicable Documents

Documents applicable to this Statement of Work are listed in Attachment J-13, List of Applicable Documents, or in the task orders. They are available at the

JSC and Engineering Directorate homepage. The contractor shall ensure that the official, latest version of the applicable document is utilized in performance of this contract.

ATTACHMENT J-2 DATA REQUIREMENTS LIST (DRL)

Attachment J-2

Data Requirements List (DRL)

The following pages set out the documentation requirements of this contract, starting with a DRL, which is an index to the DRDs. Each DRD prescribes the required data product content, schedule, type, and other particulars for specific data submission requirements.

Subject to the Clause 52.227-14, Rights in Data - General, this document sets forth the data requirements in each Data Requirements Description (DRD) and shall govern that data required for this contract. The contractor shall furnish data defined by the DRDs listed on the Data Requirements List (DRL) by category of data. Such data shall be prepared, maintained, and delivered to NASA in accordance with the requirements set forth within this document. In cases where data requirements are covered by a Federal Acquisition Regulation (FAR) or NASA FAR Supplement (NFS) regulation or clause, the regulation will take precedence over this document, per FAR 52.215.33. NASA-Owned/Contractor-Held records shall be managed by the Contractor in accordance with Title 36 of the code of Federal Regulations, Chapter XII B, Records Management, and NMI 1440.6, NASA Records Management Program. The records shall be organized in accordance with the instructions in NHB 1442.1, NASA Uniform Files index, as applicable. The contractor shall disposition records and non-records in accordance with NHB 1441.1, NASA Retention Schedules, which has been approved by NASA and the National Archives and Records Administration (NARA). All questions on records management issues shall be directed through the Contracting Officer to the JSC Records Management Officer.

Documents included as applicable documents in the data requirements form a part of this document to the extent specified herein. References to documents other than applicable documents in the data requirements of this document may sometimes be utilized. They are to be used as a possible example or to provide related information to assist the contractor in developing a response to that particular data requirement.

Description

This document identifies and defines the requirements and data types for information and data required under this contract.

The Data Requirement Descriptions (DRDs), along with the Data Requirements List (DRL), define, by an individual Data Requirement, the information and data required for each deliverable document.

The data types are used to identify the approval and control required for each DRD. The Data Requirements List (DRL) is an index of all the DRDs by category

and includes additional requirements for each DRD and the data types, as described below.

Documentation submitted pursuant to this clause may incorporate references to other current approved documentation, provided the references are adequate and include such identification elements as title, document number, and approval date (where applicable). However, if the pertinent information is of relatively minor size, the contractor shall incorporate the information itself, in lieu of using a reference. The contractor shall assure that any referenced information is readily available to appropriate users of the submitted document.

Number Of Copies And Distribution Requirements

The contractor shall submit data product required in each DRD in compliance with the standard distribution list shown in Block 8 of the DRLs. Additional distribution shall be made as directed, in writing, by the Contracting Officer. The number of copies required will not exceed the limits set forth in Clause 1852.208-81, Restrictions on Printing and Duplicating, without prior Contracting Officer approval. Electronic Data Transmittal Forms will be used to confirm delivery of electronically resident DRD deliverables.

Electronic Format

All the data requirements shall be delivered in the format as depicted in each DRD and compatible with JSC software loads.

Further Explanation Of DRL

Contract Start is defined as **TBD**.

Block 3 – Frequency of submittal/Maintenance:

Code	Description	Code	Description	Code	Description
AD	As Directed	DA	Daily	RD	As Released
AN	Annually	DD	Deferred Delivery	RT	One Time and Revisions as Required
AR	As Required	MO	Monthly	SA	Semi Annually
BE	Biannually	OT	One Time	TY	Three Per Year
BM	Bimonthly	PV	Per Vehicle	UR	Upon Request

BW Biweekly QU Quarterly WK Weekly

Block 4 – As of Date- If reports are of a recurring nature, an as of date will be included in this block (cutoff date and due date: e.g., 15/1 indicated input cutoff date of 15th and due date of 1st).

Block 5 – 1st Submittal Date

Block 6 – Copies –

a. Type

Copies Type Code	**Description**
E	Electronic
HC	Hard Copy

b Number – Number of copies required for each type of copy furnished.

Block 7 – Data Type

For the purpose of this clause, the following information/documentation types are applicable:

(1) Type1 - Written approval -- Data and changes thereto requiring written approval by the NASA Office of Primary Responsibility (OPR) before formal release or implementation

(2) Type2 - Mandatory submittal -- Data provided to NASA for coordination, information, review, and/or management control

(3) Type3 - Submitted upon request -- Data prepared and retained under a specific contract to be made available to NASA upon request

Type 1 submissions shall be marked “TYPE 1 PRELIMINARY pending NASA approval or Type I APPROVED BY NASA, as appropriate." Additional special designations and deviations may be required on specific submissions in accordance with configuration management requirements.

Type 2 submissions shall be marked “TYPE 2 PRELIMINARY - RELEASE TARGET DATE, xx/xx/xx" or "TYPE 2 FINAL - NASA COMMENTS INCLUDED" or “TYPE 2 FINAL DOCUMENT," where NASA comments were not received.

NOTE: Documents submitted under this clause, even though directly (Type 1) or implicitly (Type 2) approved by NASA, shall not take precedence over the specifications as set out in Section C, Statement of Work.

The contractor shall normally deliver a complete revised Type 1 or Type 2 data requirement with NASA comments incorporated within 45 days of receipt of comments.

Type 3 submissions shall be marked "TYPE 3 DOCUMENT - FOR INFORMATION, SURVEILLANCE, REVIEW OR MANAGEMENT CONTROL".

Block 8 – Distribution

Block 9 – Remarks: Additional requirements, clarification or amplification of requirements from other blocks.

a. Title of Contract, Project, SOW, etc.	b. Contract/RFP No.	c. DRL Date/Mod Date (mm/dd/yyyy)
Simulation & Software Technology II (SST II)	**NNJ13471515R**	**September 19, 2013**

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-date	5. 1st subm. date	6. Copies	
					a. Type	b. Number
1	NF 533, Monthly Contractor Financial Management Report	MO	See DRD	See DRD	E HC	See DRD

7. Data type: ☐ (1) Written Approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

8. Distribution
1) LF3/Cost Accounting
2) BH2/Contracting Officer (CO)
3) LD2/Budget/Program Analyst
4) ER/Contracting Officer's Representative (COR)

9. Remarks

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-date	5. 1st subm. date	6. Copies	
					a. Type	b. Number
2	Quarterly Progress Reports	QU	See DRD	See DRD	E	2

7. Data type: ☐ (1) Written Approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

8. Distribution
1) BH2/CO
2) ER/COR

9. Remarks

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-date	5. 1st subm. date	6. Copies	
					a. Type	b. Number
3	Management Plan	RT	See DRD	Due w/proposal	E HC	See DRD

7. Data type: ☐ (1) Written Approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

8. Distribution
1) See DRD

9. Remarks

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-date	5. 1st subm. date	6. Copies	
					a. Type	b. Number
4	Technical Efficiencies and Innovation Proposed SOW Language	See DRD	See DRD	Due w/proposal	See DRD	See DRD
7. Data type:	☒ (1) Written Approval	☐ (2) Mandatory Submittal		☐ (3) Submitted upon request		
8. Distribution See DRD		**9. Remarks**				

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-date	5. 1st subm. date	6. Copies	
					a. Type	b. Number
5	Contract Phase-In Plan	OT	See DRD	Due w/proposal	E HC	See DRD
7. Data type:	☐ (1) Written Approval	☒ (2) Mandatory Submittal		☐ (3) Submitted upon request		
8. Distribution **1)** With proposal		**9. Remarks**				

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-date	5. 1st subm. date	6. Copies	
					a. Type	b. Number
6	Safety and Health Plan	See DRD	See DRD	Due w/proposal	E HC	See DRD
7. Data type:	☒ (1) Written Approval	☒ (2) Mandatory Submittal		☐ (3) Submitted upon request		
8. Distribution See DRD		**9. Remarks**				

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-date	5. 1st subm. date	6. Copies	
					a. Type	b. Number
7	Total Compensation Plan	See block 9.	See DRD	Due w/proposal	E HC	See DRD
7. Data type:	☐ (1) Written Approval	☒ (2) Mandatory Submittal		☐ (3) Submitted upon request		
8. Distribution 1. See DRD		**9. Remarks** 1. Update and submit upon any major TCP changes, and update every 3 years.				

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-date	5. 1st subm. date	6. Copies	
8	Organizational Conflict of Interest (OCI) Plan	See DRD	See DRD	Due w/proposal	a. Type E HC	b. Number See DRD
7. Data type:	☒ (1) Written Approval	☒ (2) Mandatory Submittal		☐ (3) Submitted upon request		
8. Distribution 1. BH2/CO (E/HC) 2. ER/COR (E)		9. Remarks				

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-date	5. 1st subm. date	6. Copies	
9	IT Security Management Plan (for Contracts using I3P services only)	RT	See DRD	Due w/proposal	a. Type E	b. Number 2
7. Data type:	☒ (1) Written Approval	☒ (2) Mandatory Submittal		☐ (3) Submitted upon request		
8. Distribution 1) CO – 1 electronic copy 2) COTR – 1 electronic copy		9. Remarks				

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-date	5. 1st subm. date	6. Copies	
10	Reprocurement Data Package	AD	--	See Block 9	a. Type E HC	b. Number See Block 8
7. Data type:	☒ (1) Written Approval	☐ (2) Mandatory Submittal		☐ (3) Submitted upon request		
8. Distribution 1) BH2/CO (1 electronic copy, 1 hardcopy) 2) ER/COR (1 electronic copy, 1 hardcopy)		9. Remarks 1. Block 5: Package due 18 months prior to contract end or at the Contracting Officer's direction				

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-date	5. 1st subm. date	6. Copies	
					a. Type	b. Number
11	Environmental and Energy Consuming Product Compliance Reports	See DRD	See DRD	See DRD	E HC	1

7. Data type: ☐ (1) Written Approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

8. Distribution
1) JSC Environmental Office
2) BH2/CO
3) ER/COR

9. Remarks

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-date	5. 1st subm. date	6. Copies	
					a. Type	b. Number
12	Government Property Management Plan	See DRD	See DRD	Due w/proposal	E HC	3

7. Data type: ☒ (1) Written Approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

8. Distribution
1) BH2/CO – 1 electronic copy and 1 hard copy
2) ER/COR- 1 electronic copy
3) JB/NASA JSC Property Administration - 1 electronic copy and 1 hard copy

9. Remarks
Revisions to this DRD shall be incorporated by change page or complete reissue. The Contractor shall review the Government Property Managemet Plan as directed by the CO and revise the plan, if necessary. Revisions are subject to CO approval.

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-date	5. 1st subm. date	6. Copies	
					a. Type	b. Number
13	Reports Required for Logistics	AN	September 30	Contract start + 365 days	E	3

7. Data type: ☐ (1) Written Approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

8. Distribution
1) Electronic copy submitted to CO.
2) Electronic copy submitted to NS1/Chief, JSC Safety and Test Operations Division.
3) Electronic copy submitted to COTR.

9. Remarks

Attachment J-3

Data Requirements Description (DRD)

1. DRD Title	2. Current Version Date	3. DRL Line Item No.	4. RFP/Contract No.
NF533, Monthly Contractor Financial Management Report	April 9, 2013	1	NNJ13471515R/ NNJ14HA04B
5. Use (Define need for, intended use of, and/or anticipated results of data)			**6. Category (Check one)**
Provide a basis for reporting and evaluating cost and expenditure in support of this contract. The data contained in the reports must be auditable using Generally Accepted Accounting Principles. Supplemental cost reports submitted in addition to the NF 533 must be reconcilable to the NF 533.			☐ Technical ☒ Administrative ☐ SR&QA
7. References (Optional)		**8. Interrelationships (e.g., with other DRDs)**	
NPR 9501.2E			
9. Preparation Information (Include complete instructions for document preparation).			

Approved By:

/original in file/

Dorothy E. Swanson – Chief Financial Officer Date

The NASA Form 533 (NF533) reports provide data necessary for the following:

1. Projecting costs and hours to ensure that dollar and labor resources realistically support project and program schedules.
2. Evaluating contractors' actual cost and fee data in relation to negotiated contract value, estimated costs, and budget forecast data.
3. Planning, monitoring, and controlling project and program resources.
4. Accruing cost in NASA's accounting system, providing program and functional management information, and resulting in liabilities reflected on the financial statements.

Cost is a financial measurement of resources used in accomplishing a specified purpose, such as performing a service, carrying out an activity, acquiring an asset, or completing a unit of work or project. NASA Procedural Requirements (NPR) 9501.2E entitled “NASA Contractor Financial Management Reporting,” or its most current revision, identifies the cost reporting requirements for a contract. An NF533 format is provided in *Appendix A.*

NASA is required by law to maintain accrual accounting, which requires cost to be reported in the period in which benefits are received, without regard to time of payment.

The reports (NF533M [Monthly] and NF533Q [Quarterly]) are the official cost documents used at NASA for cost type, price determination, and Fixed Price Incentive contracts. The data contained in the reports must be auditable using Generally Accepted Accounting Principles (GAAP). Supplemental cost reports submitted in addition to the NF533 must be reconcilable to both the NF533M & NF533Q.

Common NF533 Cost Elements

Examples of accrual accounting for common cost elements reported on the NF533 follow:

Cost Elements	Definitions
Labor	Reported to NASA as hours and cost are incurred.
Equipment & Materials (commercial off the shelf)	Generally reported to NASA when received and accepted by the contractor.

Manufactured Equipment	Defined as any equipment that is produced to specific requirements that make it useless to anyone else without rework. Cost should be reported to NASA as the equipment is being manufactured. The straight-line method for estimating accrued costs, or the use of supplemental information obtained from the vendor, are acceptable methods used to calculate the cost accrual amount.
Leases	Reported to NASA using a proration over the life of the lease.
Travel	Reported to NASA as costs are incurred.
Subcontracts & Other Direct Costs	Actual and estimated costs reported by prime contractors shall include subcontractors' incurred costs for the same accounting period. Where subcontract costs are material, they should be separately identified on NF533 reports. The prime contractor shall include in the total cost of each subdivision of work the accrued cost (including fee, if any) of related subcontractor effort. Subcontractors should, therefore, be required to report cost to the prime contractor, using the accrual method of accounting. If the G&A and fee reported by a subcontractor are at the total subcontractor level, these costs must be allocated to specific sub- divisions of work. Data submitted by the subcontractor should be structured similar to the prime contractor's NF533 to enable the prime contractor to properly report to NASA. For Firm Fixed Price subcontracts with a contract value greater than $500,000, the prime contractor is required to document the methodology used to generate the sub-contractor costs reported and provide this information to the NASA Contracting Officer and Center Deputy Chief Financial Officer of Finance.
Unfilled Orders	Reported as the difference between the cumulative cost incurred to date and amounts obligated to suppliers and subcontractors.
Fee	Fee should be reported on the NF533 following the "Total Cost" line. Award fee must be reported by the following categories: Base Fee, Fee Earned,

	Interim Fee, Provisional Fee, Potential Additional Fee, and Total Fee. If any of the above fee categories do not pertain, they should not be included in the NF533.
Prompt Payment Discounts	Cumulative cost reported to NASA should be the full incurred cost. The prompt payment discount amount taken should be reported as a separate line item on the NF533 below the cumulative cost amounts for the contract.

Common NF533 Data Elements

The following NF533 Data Elements shall be included:

Data Element Name	Description
Reporting Category (RC)	Task, Delivery Order, Work Breakdown Structure
Cost Incurred for Month (7a)	Prior month actual cost incurred for each RC (column 7a on NF533)
HR/WYE Incurred for Month (7a)	Prior month actual HR/WYE incurred for each RC (column 7a on NF533)
Contract prior month planned cost (7b)	Planned cost for prior month for each RC (column 7b on NF533)
HR/WYE contract prior month planned hours (7b)	Prior month planned HR/WYE for each RC (column 7b on NF533)
Current FY Cum to Date Actual (7c1)	Actual cumulative cost and hours incurred for the current Government Fiscal Year through the prior month for each RC (column 7c1 on NF533)
Current FY Cum to Date Plan (7d1)	Planned cumulative cost and hours for the current Government Fiscal Year through prior month for each RC (column 7c1 on NF533)
Contract ITD cost (7c2)	Contract ITD cost for each RC (column 7c2 on NF533)
Contract planned ITD cost (7d2)	Contract planned ITD cost for each RC (column 7d2 on NF533)
Current month estimated cost (8a)	Cost estimate for the current month for each RC (column 8a on NF533)

Current month estimated HR/WYE (8a)	HR/WYE estimate for the current month for each RC (column 8a on NF533)
Next month estimated cost (8b)	Estimated cost for next month for each RC (column 8b on NF533)
Balance of Contract (8c)	Balance of contract for the remaining estimate to complete for each RC (column 8c on NF533)
Government Fiscal Year EAC (8d)	Actual cumulative cost and hours incurred plus remaining estimated cost and hours for the current Government Fiscal Year (column 8d on NF533)
Contractor Estimate (9a)	Contractor estimate for the total estimate to complete entire scope of contract for each RC (column 9a on NF533)
Contract Value (9b)	Contract value based upon contract modifications for each RC (column 9b on NF533)
Unfilled orders outstanding (10)	Unfilled orders outstanding at the end of the reporting period for each RC (column 10 on NF533)
Reporting Category level	Used by NASA's accounting system to determine the RC level
Reporting Category Identifier	Identifies if the RC is a actual Reporting Category or a Sub-Reporting Category

A Reporting Category (RC) correlates to a task order, delivery order, or Work Breakdown Structure (WBS) and is the level at which cost is reported. Each RC can have Sub-Reporting Category line items (detailed cost elements) that add up to a RC. **The Contractor is required to coordinate with the NASA Resource Analyst assigned to the contract in order to establish and maintain the Reporting Categories the contractor shall use to comply with this data requirement.**

Column 7b (planned cost incurred/hours worked for the month) and 7d (cumulative planned cost incurred/hours worked) of the NF533M represent the negotiated baseline plan for the contract. There may not be a relationship between the estimates provided in columns 8 of the NF533M to columns 7b and 7d. Columns 7b and 7d represent the legally binding contract negotiated baseline plan plus all authorized changes.

Uncompensated overtime hours worked should be reported on NF533 reports as a separate line item or in the footnotes.

Short and long-term cost estimates, which include all data entered in columns 8 and 9a on the NF533M and NF533Q reports, shall be based on the most current and reliable information available.

Prior period cost adjustments shall be reported in column 7a and 7c of NF533M and column 7a of the NF533Q as soon as identified with a footnote discussing the reasons for and amounts of the adjustments and time period the adjustment relates to, delineated by government fiscal year, if affecting more than one fiscal year.

Personal Property & Equipment Reporting

For all Personal Property & Equipment, purchased or fabricated, the contractor must obtain:

1. Prior approval by the Contracting Officer (CO) or their delegated Property Administrator (PA)
2. The NASA Capitalization or Expense determination from the NASA Finance Property office.

These must be obtained prior to cost being incurred for the property acquisition/fabrication. This will help ensure appropriate 533 reporting for items identified as capital. The capitalization/expense determination governs the contractor cost reporting requirements associated with the acquisition.

For all Personal Property & Equipment, purchased or fabricated, determined by NASA to be Capital, the contractor cost reporting structure to NASA shall:

1. Report the costs of each capital asset (i.e., each individual end item deliverable) as a separate reporting category on the NF 533 or other required cost reporting format.
2. Maintain a reporting structure that allows for the contractor accumulation and reporting of cost separately for each identified capital asset (i.e., each individual end item deliverable).

Capital property is defined by NASA as personal property and equipment, acquired or fabricated, that NASA will have title to and that meets all of the following criteria:

1. Has a total acquisition value equal to, or greater than, $100,000
2. Has a useful life equal to, or greater than, 2 years (no prototypes, test articles, one time use items, etc.) and is not intended for sale in the course of normal operations

3. Has been acquired or constructed with the intention of being used, or available for use, by NASA
4. Has a planned alternative use (current or future) on another project with a separate and distinct research objective.

For all Personal Property & Equipment, purchased or fabricated, determined by NASA to be Expense, the contractor is not required to report costs at the detail asset level i.e., as a separate reporting category on the NF 533 or other required cost reporting format.

The Center Finance Property Office makes the capitalization/expense determination based on information provided by the NASA Project Manager.
The Center finance property office acquires the information from the NASA Project Manager using the Form NF1739 Alternative Future Use Questionnaire (AFUQ) which is required for each asset valued at, or greater than, $100k. The Center finance property office may utilize a supplemental questionnaire and/or additional communication with the project manager, or their associates, to ensure adequate information is obtained to make the appropriate accounting treatment determination i.e., to Capitalize or Expense the asset.

NF533 Due Dates

The due dates for the NF533M and NF533Q reports are outlined in Chapter 3 of NPR 9501.2E. The following is a summary of the NF533 due date requirements:

NF533 Report	Due Date
NF533M	Due no later than the 10th working day following the close of the contractor's accounting period or the 15th calendar day of the month, whichever is earlier.
NF533Q	**The NF533Q requirement was waived by the JSC CFO on September 4, 2013.**

The due dates reflect the date the NF533 reports are received by personnel on the distribution list, not the date the reports are generated or mailed by the contractor. It is critical that the NF533 reports are submitted in a timely manner to ensure adequate time for NASA to analyze and record the cost into the NASA accounting system.

An initial NF533 report is required in the NF533Q format to be used as a baseline for the life of the contract. The initial (baseline) NF533Q report shall be submitted by the contractor within 30 days after authorization to proceed has been granted. The initial report shall reflect the original

contract value detailed by negotiated reporting categories and shall be the original contract baseline plan. In addition to the initial (baseline) report, monthly NF533 reporting shall begin no later than 30 days after the incurrence of cost.

NF533 Final Submission Upon Contract Completion

Monthly NF533 reporting is no longer required once the contract is physically complete, provided the final cost report includes actual cost only (no estimates or forecasts). The contractor must continue to submit monthly NF533 reports as long as estimates for the following period are included. If the final cost of a contract changes after the submission of the "final" contractor cost report, the contractor must submit a revised NF533 report in the month the cost change is recognized.

Electronic NF533 Flat File Requirement
(will only be submitted if requested during the course of the contract)
If requested by NASA, the contractor shall submit a Flat File NF533M electronically by the same due date. The data shall be submitted via email using the Government prescribed flat file format (if requested, an example of the Agency Defined File Format layout details will be provided by NASA).

NF533 Report Distribution

LF3 Cost Accounting (1 electronic copy. If electronic copy is not signed, a signed hardcopy is required)

BH2 Contracting Officer (1 hardcopy, 1 electronic copy)
LD2 Budget/Program Analyst (1 electronic copy)
ER1 Technical (3 electronic copy)

NF533 Supplemental Reporting

Supplemental reporting requirements will be submitted during the course of the contract in accordance with direction in *Appendix B.*

APPENDIX A. NF533 Format

PAGE _____ OF _____ PAGES

National Aeronautics and Space Administration

Monthly Contractor Financial Management Report

Form Approved
O.M.B. No. 2700-0003

2. REPORT FOR MONTH ENDING AND NUMBER OF WORKING DAYS

TO:

FROM:

3. CONTRACT VALUE
a. COST $ | b. FEE $

1. DESCRIPTION OF CONTRACT
a. TYPE
b. CONTRACT NO. AND LATEST DEFINITIZED MODIFICATION NO.
c. SCOPE OF WORK
d. AUTHORIZED CONTRACTOR REPRESENTATIVE (Signature) | DATE

4. FUND LIMITATION $

5. BILLING
a. INVOICE AMTS. BILLED $ | b. TOTAL PYTS. REC'D. $

6. REPORTING CATEGORY	7. COST INCURRED/HOURS WORKED				8. ESTIMATED COST/HOURS TO COMPLETE			9. ESTIMATED FINAL COST/HOURS		10. UNFILLED ORDERS OUTSTANDING
	DURING MONTH		CUM. TO DATE		DETAIL		BALANCE OF CONTRACT			
	ACTUAL a.	PLANNED b.	ACTUAL c.	PLANNED d.	a.	b.	c.	CONTRACTOR ESTIMATE a.	CONTRACT VALUE b.	

Baseline Plan Identification (Col. 7b & 7d): Revision No. _____ , Dated _____

NASA FORM 533M SEP 11 PREVIOUS EDITIONS ARE OBSOLETE. NRRS 9500

http://nodis3.gsfc.nasa.gov/npg_img/N_PR_9501_002E_/NF533M.pdf

PAGE _____ OF _____ PAGES

National Aeronautics and Space Administration

Quarterly Contractor Financial Management Report

Form Approved
O.M.B. No. 2700-0003

2. REPORT FOR QUARTER BEGINNING

TO:

FROM:

3. CONTRACT VALUE
a. COST $ | b. FEE $

1. DESCRIPTION OF CONTRACT
a. TYPE
b. CONTRACT NO. AND LATEST DEFINITIZED MODIFICATION NO.
c. SCOPE OF WORK
d. AUTHORIZED CONTRACTOR REPRESENTATIVE (Signature) DATE

4. FUND LIMITATION $

5. BILLING
a. INVOICE AMTS. BILLED $ | b. TOTAL PYTS. REC'D. $

6. REPORTING CATEGORY	7. COST INCURRED/ HOURS WORKED			8. ESTIMATED COST/HOURS TO COMPLETE										9. ESTIMATED FINAL COST/HOURS		10. ESTIMATED COMPLETION DATE	11. UNFILLED ORDERS OUTSTANDING
	CUMULATIVE ACTUAL THROUGH PRIOR MONTH a.	CURRENT MONTH ESTIMATE b.	CUMULATIVE ESTIMATE TO DATE c.	MONTH d.	MONTH e.	MONTH f.	QUARTER g.	QUARTER h.	QUARTER i.	BALANCE OF FY- j.	NEXT FY- k.	BALANCE OF CONTRACT l.	TOTAL TO COMPLETE m.	CONTRACTOR ESTIMATE n.	CONTRACT VALUE o.		

NASA FORM 533Q NOV 11 PREVIOUS EDITIONS ARE OBSOLETE.

http://nodis3.gsfc.nasa.gov/npg_img/N_PR_9501_002E_/NF533Q.pdf

APPENDIX B. Required Supplemental Reporting

Annual Accounting Calendar: The contractor's accounting calendar for the contract period of performance shall be provided in electronic format to the LD2 resource analyst, and LF3 Cost Accountant within 10 business days after contract award. Updates to the accounting calendar shall be provided in electronic format to the LD2 resource analyst and LF3 Cost Accountant before the delivery of the subsequent NF533.

Contractor Variance Report: The contractor shall submit variance reports along with the NF533M when NF533M variances meet or exceed +/- 5% for each Reporting Category for the following items:

1. Column 7A current month (actuals) to 8A previous month (estimate)
2. Column 7A current month (actuals) to 7B current month (plan)

Monthly Unfilled Orders: The contractor shall submit a report in conjunction with the delivery of the monthly NF533M if there are *Unfilled Orders Outstanding (10)*. The report shall be broken down by reporting category and include the item description, the originally reported delivery date and costs, updated delivery date and costs, justifications for delays of greater than 30 days, and justifications for changes in costs greater than 5%. The following format shall be used for this report.

A	B	C	D	E	F	G	H
Rept. Category	**Item**	**Original Estimated Delivery Date**	**Adjusted Estimated Delivery Date**	**Justification for delays greater than 30 days**	**Original Estimated Costs**	**Adjusted Estimated Costs**	**Justification for cost changes greater than 5%**

Quarterly Estimate Report: If the contractor's month-end reporting does not align with the last day of the calendar month, the contractor shall provide a supplemental report for each calendar-month ending a government fiscal quarter (December, March, June, and September). The report shall be broken down by reporting category and include the original and adjusted 533M *Current Month Estimated Cost and Hours* (8a) that reflects the estimated costs and hours accrued through the last day of the calendar month. All estimated costs shall include unfilled orders expected

to be delivered during the adjusted period. The following format shall be used for this report.

A	B	C	D	E	F	G
Reporting Category	**533M Current Month Estimate (8a) - Costs**	**533M Current Month Estimate (8a) - Hours**	**Current Month Est. Adj. (Costs)**	**Current Month Est. Adj. (Hours)**	**Total Adj. Current Month Est. (Costs)**	**Total Adj. Current Month Est. (Hours)**
					= B + D	= C + E

Annual Economic Impact Assessment: The contractor shall submit answers to the following four questions back to the LD2 resource analyst in conjunction with the delivery of the October NF533M. The answers should be estimates only, as this requirement is not intended to be an extensive exercise. The information provided will be rolled-up to create Center-level estimates, and will not identify any specific contract. This information will not be shared at the contract-level with anyone outside NASA.

1. What was the on-board total headcount for this contract as of September 30th? (Please include in-directs and an estimate for your major subcontractors.)

2. For the total workforce indicated in #1 above, approximately how many worked in the local Clear Lake area, including JSC? (JSC includes JSC proper, Sonny Carter Training Facility, and Ellington Field.)

3. What was the approximate dollar value of goods and services (including labor) purchased in the Houston area under this contract during the prior Government Fiscal Year?

4. What was the approximate dollar value of goods and services (including labor) purchased outside the Houston area but within the State of Texas?

1.DRD Title	2. Current Version Date	3. DRL Line	4. RFP/Contract No.
Quarterly Progress Reports	FEB 2007	2	NNJ13471515R/ NNJ14HA04B

5. Use (Define need for, intended use of, and/or anticipated results of data)
To provide documentation of progress and status for tasks and activities for the specified monthly period.

6. DRD Category: (check one)						
	X	Technical		Administrative		SR&QA

7. References (Optional)	8. Interrelationships (e.g., with other DRDs)

9. Preparation Information (Include complete instructions for document preparation)

The report should provide a general technical overview of accomplishments and status, for each project, task or activity at a granularity which provides each NASA project manager, using resources on this contract, a technical synopsis of the contractor's contribution and technical understanding in each domain of activity.

The report should flag any issues or concerns in meeting technical, schedule, and/or cost issues on each task, as well as goals or plans for the following quarter's activities. The report should also include a Safety & Health status for the quarter including incidents, close calls, and time away from work.

Format: Contractor's format is acceptable but must include the content listed above.

Distribution:

1. __BH/ Contracting Officer (1 electronic copy)

2. __ER/ Contracting Officer's Technical Representative (1 electronic copy)

Submission:

Due by the 10th working day following the close of the contractor's quarterly accounting period.

1.DRD Title	2. Current Version Date	3. DRL Line Item	4. RFP/Contract No.
Management Plan	September 2013	3	NNJ13471515R/ NNJ14HA04B

5. Use (Define need for, intended use of, and/or anticipated results of data)

This document describes the Contractor's overall management systems for the implementation and accomplishment of the contract requirements.

6. DRD Category: *(check one)*		Technical	X	Administrative		SR&QA

7. References *(Optional)*	8. Interrelationships *(e.g., with other DRDs)*
NPD 2190.1, NASA Export Control Program Policy NPR 8000.4 , Risk Management	

9. Preparation Information (Include complete instructions for document preparation)

This document shall be the master plan which describes the overall Contractor approach for the conduct and implementation of the contract requirements. Plan contents can be summary in nature but shall provide sufficient information to define the concepts and techniques to be employed in the Contractor's approach to program management of this contract.

1. The Plan shall consist of an index of the Contractor's internal operation plans, directives, and procedures for each of the following areas with a brief discussion as to how they will be utilized in managing the effort and fulfilling the requirements:

   Program and Performance Management (e.g. cost, resources, customer satisfactions)
   Risk Management and Mitigation
   Export Control
   Information and Data Management
   Engineering Management
   Logistics Management

When completing the above listed sections, include the following elements for the designated section.

The Program and Performance Management section shall include:

a. A description of how the overall approach creates an efficient and

effective interface to the Government in the management and communication of SOW tasks and priorities.

b. A description of the processes for communicating and obtaining Government concurrence with changing priorities and workforce adjustments.
c. A description of the policies, processes, procedures, and techniques proposed to measure the effectiveness of products and services provided.
d. Your proposed approach to measuring, reporting and continuously improving how well customer expectations are met.
e. Your proposed approach to developing and maintaining customer relationships. Describe the steps you will take to ensure that customer interactions are effective.

The Risk Management and Mitigation section shall include:

a. A description of your proposed risk management approach and how it relates to potential areas of risk to performance including the probability of the risk occurring, the impact and severity of the risk.
b. An overview of your proposed risk management process, including identification, analysis, planning, tracking, control, communication, and documentation of risk.

The Export Control section shall include:

a. Description of Contractor's export control program, including details of its licensing and personnel training.
b. Discussion of the overall approach to ensure compliance with export control laws, regulations, and contract requirements.
c. Any approvals required for foreign subcontractors or team members, or for interaction with International Space Station (ISS) International Partners (IPs).
d. Details of any approvals or licenses obtained, submitted, or planned (e.g., export control licenses, technical assistance agreements).

In addition to the subjects listed above, the Contractor may add subjects as deemed appropriate and necessary in order to convey the total program plan.

2. The Plan shall include a current organization chart for the organization responsible for conducting the effort. The chart shall show lines of authority and how this contract fits within the corporate organization structure. Supporting documentation shall be furnished to document the roles and responsibilities, task assignments, products and management relationships for each organizational unit responsible for this effort. The Contractor shall identify by name the key personnel in all subject matter

areas. The Contractor shall provide anticipated/projected hiring dates for vacant positions. The Plan shall provide notification of any significant changes to the Contractor's organization, method of operation, or to the management network. In addition, the Plan shall:

a. Discuss how your proposed organizational structure is flexible and can adapt to multiple and changing Program and Project needs.
b. Describe the communication channels, lines of authority, reporting relationships, and responsibilities of all organizational elements.
c. Describe the proposed organizational elements within the overall organization you believe are most critical to satisfactory accomplishment of all performance requirements and provide rationale as to why these are judged most critical within the framework of the overall organization.
d. Provide supporting rationale that demonstrates the proposed organizational approach will ensure success in each of the critical areas identified.

3. The Plan shall identify key subcontractors and describe the Contractor's system for control over all subcontractors. Subcontractors shall provide notification of any significant changes to their organizations (e.g., personnel changes, accounting system) or method of operation. In addition, the Plan shall:

   a. Discuss the details of formal arrangements with any proposed subcontractors, team members, or joint venture partners.
   b. Discuss the rationale for selection of proposed subcontractors, team members, or joint venture partners, both large and small businesses.
   c. Discuss the level of expertise and the necessary capabilities of the proposed subcontractors, team members, or joint venture partners.

4. Describe any innovations and efficiencies to be implemented and gained through the proposed approach to Program, Performance and Risk Management. Provide adequate rationale to substantiate proposed innovations.

5. Describe the approach for managing a workforce with skills to support C/C++ programming, Linux operating systems, Trick simulation environment, systems engineering and integration of spacecraft simulation software applications, hardware/software integration for spacecraft simulation applications, DOUG virtual reality graphics, spacecraft guidance, navigation and control, NASA space robotics systems and Orion vehicle systems management.

Upon NASA approval, the Plan shall for the basis for the Contractor's overall

program management system and shall be updated and submitted to NASA for approval as revisions are required.

1. DRD Title	2. Current Version Date	3. DRL Line Item	4. RFP/Contract No.
Technical Efficiencies and Innovation Proposed SOW Language	October 2013	4	NNJ13471515R/ NNJ14HA04B

5. Use (Define need for, intended use of, and/or anticipated results of data)	6. DRD Category: (check one)	
To provide proposed SOW language for techncial effieciencies and innovations.	☒	Technical
		Administrative
	☐	SR&QA

7. References (Optional)	8. Interrelationships (e.g., with other DRDs)

9. Preparation Information (Include complete instructions for document preparation)

a. Data Type: 1

b. Scope:

To provide proposed SOW language for proposed technical efficiencies and innovations.

c. Content:

The Offeror shall provide SOW language and SOW location for each efficiency and innovation proposed under Overall Technical Approach (Mission Suitability Subfactor 2). Innovations and efficiencies may be incorporated into the SOW after award.

d. Format: Contractor's format is acceptable.

e. Distribution: Due with proposal

f. Submission:
1. Initial: Due with proposal.
2. Preliminary: Complete DRD submission due at Contract start.
3. Final: Contract start + 60 calendar days.
4. Approval: Contract start + 90 calendar days.

1. DRD Title	2. Current Version Date	3. DRL Line Item	4. RFP/Contract No.
Contract Phase-In Plan	February 23, 2007	5	NNJ13471515R/ NNJ14HA04B
5. Use **(Define need for, intended use of, and/or anticipated results of data)**			
This document establishes how the Offeror proposes to assume responsibilities 45 days prior to contract start date.			

6. DRD Category: *(check one)*		Technical	X	Administrative		SR&QA

7. References *(Optional)*	8. Interrelationships *(e.g., with other DRDs)*

9. Preparation Information **(Include complete instructions for document preparation)**

A phase-in period is anticipated during which staffing buildup, training, and gradual assumption of responsibilities will transpire during the 45 days prior to contract start. Each offeror shall provide the information requested in the following paragraphs plus any other items it considers relative to its proposed phase-in plan.

In the plan, the Offeror shall:

1. Describe in detail the plan for a smooth phase-in without compromising effective and efficient safety and quality operations/activities of the current JSC Projects and Programs. Provide the management milestones, and all associated schedules that you believe are required from start of phase-in to the full assumption of contract responsibilities.

2. Describe the steps to be taken, including any that have been taken to date, to assure that the contract will be fully staffed with a staff capable of performing the requirements of this RFP at the effective date of the contract. Include a time-phased staffing plan. Please note the total workforce intended to be recruited from the following sources:

    a. Offeror's own resources
    b. Other divisions of the company
    c. Incumbent contractor's workforce
    d. Outside recruitment

3. Describe in detail any plans for certifying and/or training your personnel, including key and critical personnel functions, for assuming operational responsibility, and throughout the life of the contract.

4. Describe in detail the plan for maintaining relationships during phase-in with incumbent contractors and NASA, including support, resources, and interfaces expected from each:

    (1) Identification of the risks and problems associated with work transition.

(2) Provide an approach to negotiating task orders during phase-in to enable work to begin upon contract start.

5. Discuss in detail any specific plans for successfully completing each phase-in performance milestone described below in paragraphs a through e. For each milestone, offerors are requested to: (1) provide a detailed plan inclusive of responsible personnel, (2) provide all relevant interim and final schedule dates to be met, and (3) propose objective criteria that can be used to determine the milestone has been achieved.

   a. **Milestone 1 – Key Personnel:** The successful Offeror has hired all personnel it proposed as key personnel and all of these personnel are performing phase-in work. This milestone shall be fully achieved by the completion of contract phase-in.
   b. **Milestone 2 – Staffing:** At least 90% of all personnel proposed to perform all contract requirements have provided written acceptance of firm job offers. This milestone shall be fully achieved by the completion of contract phase-in.
   c. **Milestone 3 – Staffing:** The successful offeror has completed JSC's clearance and badging as well as training requirements for all personnel necessary to perform the full scope of contract requirements. This milestone shall be fully achieved no later than 30 days after contract start date.
   d. **Milestone 4 – Subcontracts:** The successful offeror has all subcontracts in place and ready to perform contract requirements. This milestone shall be fully achieved no later than 30 days after contract start date.
   e. **Milestone 5 – Accounting System:** The successful offeror has an accounting system in place and running . This milestone shall be fully achieved no later than 30 days after contract start date.

1. DRD Title	2. Current Version Date	3. DRL Line Item	4. RFP/Contract No.
Safety and Health Plan	08/13 (replaces 01/11 version)	6	NNJ13471515R/ NNJ14HA04B

5. Use (Define need for, intended use of, and/or anticipated results of data)

Establishes Safety and Health Plan for Contractors providing support to JSC organizations

***The Office of Primary Responsibility for this DRD is the JSC Safety and Test Operations Division

6. DRD Category: (check one)		Technical		Administrative	X	SR&QA

7. References (Optional)	8. Interrelationships (e.g., with other DRDs)
OSHA CSP 03-01-003, Voluntary Protection Program (VPP): Policies and Procedures Manual JSC 17773, Instructions for Preparation of Hazard Analysis for JSC Ground Operations JPR 1700.1 JSC Safety and Health Handbook	

9. Preparation Information (Include complete instructions for document preparation)

Frequency of Submission. Initial submission with the proposal. Upon NASA approval, the Contractor's Safety and Health Plan become a Contractual Requirement.

Distribution: Send copies to each of the following:

Contracting Officer (1 hard copy, 1 electronic copy)

NS/Safety and Test Operations Division (1 electronic copy)

JSC Occupational Health Office (1 electronic copy)

JSC Emergency Preparedness Office (1 electronic copy)

After the plan is approved by NASA, the CO will retain the plan in the Contract file.

Revisions to the Plan: Review the plan annually or as directed by the CO. Update the plan to meet the latest OSHA, JSC, and VPP requirements. Provide a copy of the updated plan with the changes highlighted to the distribution list above at the start of each Contract year. If no changes are required after the annual review, notify the individuals in the distribution list in writing to that affect.

Other Deliverables: The plan must include instructions for submitting the deliverables in Table 1 below to the Government and represent contractual commitments by the Contractor to provide this information.

Table 1, Safety and Health Deliverables

Deliverable	**Frequency**	**DRD ¶**	**Comments**
Identity of key safety and health personnel: • Company Physician/Occupational Injury/illness case manager • Designated Safety Official • Safety Representative • Building Fire Wardens (Roster)	Within 15 days of contract start and updated with changes	1.5	Include in plan or attachment to plan
Safety and Health Self Evaluation Report	Yearly by Sept 30	1.8	Send to Safety and Test Operations Division
Roster of Terminated Employees	Yearly, 30 days after the end of the contract year	1.9.1	Send to the Occupational Health Branch
Material Safety Data Sheets (MSDS)/Safety Data Sheets (SDS)	When you introduce a new hazardous material	1.9.2	Send to the Occupational Health Branch See JPR 1700.1, Chapters 9.1 & 9.2
Hazardous Materials Inventory	Yearly or when quantities or locations change significantly. Some products require quarterly updates	1.9.3	Send to the Occupational Health Branch See JPR 1700.1, Chapter 9.2
Inspection results entered in Building Inspection Tracking System (BITS)	10 working days after completing inspection	2.4	

Deliverable	Frequency	DRD ¶	Comments
On-site close calls forwarded to JSC close call tracking system	Within 3 working days of receipt	2.6	Send to Safety and Test Operations Division Required only for contractor close call systems
Mishap reporting	Immediate and follow-up as required in JPR 1700.1	2.7.1	See Chapter 2.6 of JPR 1700.1
Lessons Learned Report	Enter data into the JSC LLDB or NASA LLIS: • Within 30 days of a triggering event; • Within 30 days of a program milestone, mishap investigation, or hazard or other engineering analysis / evaluation is completed; or • 30 days before end of contract evaluation period or 45 days before end of contract, whichever is applicable.	2.7.1.7	Database entry with 1 electronic copy to the Contracting Officer's Representative
JSC Form 288, "Accident/Incident Statistics"	Monthly by the 10th of the month	2.7.2.a	Send to JSC-Safety-Report-Submittals <JSC-Safety-Report-Submittals@mail.nasa.gov>

Deliverable	Frequency	DRD ¶	Comments
OSHA logs	Yearly by Feb 15 and within 30 days of contract end	2.7.2.b	Send to Safety and Test Operations Division OSHA 300 & 300A with names removed. Equivalent forms from contractor database are acceptable.
Hazards recorded in JSC Hazard Abatement Tracking System (HATS)	Within 5 working days of discovery	3.1, 3.12	Applies to hazards not corrected within 30 days
Interim and Final Abatement Plans	Within 5 working days of discovery	3.12.3	Updates for hazards entered into HATS

Format:

1. Cover page - to include as a minimum, blocks for the signatures of Contractor's project manager and designated safety official; NASA COR; JSC Safety and Test Operations Division: JSC Occupational Health Branch: and the NASA Contracting Officer. Other signatures may be required at the discretion of the Government. Once approved by NASA, signatures will be collected and the plan placed on the contract.

2. Table of Contents. See content below.

3. Body of plan - as required. Contractor’s format is acceptable but should be aligned with the elements of the content below.

4. The contractor is part of a larger program – the NASA safety program – which has other contracted employees, civil servants, and other third parties that must be protected from any hazard in the workplace wherever they arise. This includes the following:

a. Hazards associated with work done on contractual tasks.

b. Hazards that arise from non-contractual operations in the vicinity of contractor’s workers.

c. Hazards that arise from contractual operations which may affect the safety and health of individuals and assets outside this contract.

5. The plan will clearly identify those resources to be provided by the Contractor and proposed resources to be provided by the Government. The contractor will make this review and supporting

rationale available to the Government as part of this plan. It can be documented as a checklist or outline, inserted directly in the body of the plan, or in any format developed by the Contractor that clearly conveys the results of this review including the basis for any underlying assumptions. For further information, see the LIST OF INSTALLATION PROVIDED FACILITIES AND SERVICES provided in this RFP.

6. The plan must cover the prime contractor and all subcontractors.

Details: Address the following items in your plan:

MANAGEMENT LEADERSHIP AND EMPLOYEE PARTICIPATION

Management and employees work together as a team to provide a safe and healthful workplace. Management and employee synergies often must work together across contractual lines.

1.1 Policy: Provide the Contractor's safety and health compliance policy statement with the plan. Compare the Contractor's policy statement with those of NASA and OSHA and discuss any differences.

1.2 Goals and Objectives. Describe your approach to the following:

1.2.1 Specific annual safety and health goals and objectives to be met. Include innovative employee input systems and management approaches that produce a measurable rate of improvement in employee participation. These goals and objectives may or may not be quantifiable. Explain how you will evaluate your accomplishment of these goals and objectives.

1.2.2 Methods to be used, if any, to improve on the Days Away Case Rate (DACR), the Total Recordable Injury Rate (TRIR), and the total Days Away plus Restricted Duty plus Job Transfer (DART).

1.3 Management Leadership. Describe how management will demonstrate its commitment to safety and health compliance through visible management activities and fulfill its line management responsibilities for safety and health. Describe specific processes and techniques for implementation in all Contract and subcontract activities and products. Include a statement from the project manager or designated safety official indicating that the plan will be implemented as approved and that the project manager will take personal responsibility for its implementation.

1.4 Employee Involvement. Describe procedures to promote, implement, and sustain employee (non-supervisory) involvement in safety and health compliance program development, implementation and decision-making from all areas of the contract.

1.5 Assignment of Responsibility. Describe line and staff responsibilities for safety and health program implementation. Identify any other personnel or organizations that provide safety services or exercises any form of control or assurance in these areas. As a minimum, the plan will identify the following:

1.5.1 Safety Representative - identify by title, the individual who will be responsive to Center-wide safety, health and fire protection concerns and goals, and who will participate in various joint meetings, forums, and other activities related to the JSC Safety and Health program.

1.5.2 Company Physician/Occupational Injury/illness case manager - identify a point of contact who is responsible for the transfer or receipt of company medical data and who will be the primary contact for the company in the event any employee suffers a work related injury or illness by name, address, and telephone number to the JSC Clinic, mail code SD32. This will facilitate communication of medical data to Contractor management. Promptly notify the JSC Clinic of any changes that occur in the point of contact.

1.5.3 Building Fire Wardens - provide a roster of fire wardens at the start of each Contract year (their names, telephone numbers and pagers, and mail codes). Contractor fire wardens facilitate the JSC fire safety program, including coordination of related issues with NASA facility managers and emergency planning and response officials and their representatives. Fire wardens will be trained per JPR 1700.1. Update the Roster by letter to the JSC Safety and Test Operations Division, mail code NS2, with copies to the Contracting Officer and the COR. Provide the initial letter to the Government not later than 15 days after contract start.

1.5.4 Designated Safety and Health Official - identify by title the official(s) responsible for implementation of this plan and all formal contacts with regulatory agencies and with NASA.

1.6 Provision of Authority. Describe your approach to maintain consistency of this plan throughout the life of the contract with applicable NASA and JSC requirements and contractual direction as well as applicable Federal, State, and Local regulations.

1.7 Accountability. Describe procedures for ensuring that management and employees will be held accountable for implementing their tasks in a safe, healthful, and environmentally compliant manner.

1.8 Safety and Health Program Self Evaluation. Describe your approach to safety and health program evaluation. The program evaluation consists of providing a written self-evaluation report once per year that assesses your safety and health program effectiveness during the report period. The self-evaluation shall:

a. Follow the VPP program evaluation report format found in OSHA CSP 03-01-003, Voluntary Protection Program (VPP): Policies and Procedures Manual, Appendix C, “Format for Annual Submissions”, as mandated by the cognizant OSHA regional office.

b. Assess the elements of the approved safety and health plan as a minimum.

c. Include safety and health concerns and resolutions relating to JSC operations which may have been identified during the report period.

d. Include unresolved safety and health concerns relating to JSC operations which the Contractor feels merit attention of JSC safety and health management.

e. Include action plans with schedule for periodic progress reports to the Government on a frequency agreed to by the Government and the Contractor for each problem area.

f. Establish goals and objectives of the Contractor safety and health program for the next report period.

Note: Contractors who have submitted a written self-evaluation as a VPP site may submit their original report to OSHA in lieu of writing a new self-evaluation provided that all action plans and status are updated.

Note: This self-evaluation is not the same as the Contractor performance self-evaluation but may be used for that purpose if specifically required by the contract.

1.9 Miscellaneous Deliverables. The Contractor will acknowledge the following as standing requests of the Government and to be handled as described below.

1.9.1 Roster of Terminated Employees. Identify personnel terminated by the contractor. At the contractor's discretion, the report may include personnel changes during the previous year or cumulated for all years. Information required:

a. Date of report, Contractor identity, and Contract number.

b. For each person listed, provide name, social security number, and date of termination.

c. Name, address, and telephone number of Contractor representative to be contacted for questions or other information.

1.9.2 Material Safety Data Sheets (MSDS)/Safety Data Sheets (SDS). Prepare or deliver MSDSs/SDSs for hazardous materials brought onto Government property or included in products delivered to the Government as required in chapters 9.1 and 9.2 of JPR 1700.1.

1.9.3 Hazardous Materials Inventory. Compile an inventory report of all hazardous materials it has located on Government property quarterly as required by chapter 9.2 of JPR 1700.1, and which is within the scope of 29 CFR 1910.1200, "Hazard Communication"; and Federal Standard 313 (or FED-STD-313), "Material Safety Data, Transportation Data and Disposal Data for Hazardous Materials Furnished to Government Activities", as revised.

1.10 Government Access to Safety and Health Program Documentation. Include a statement that you will make all safety and health documentation (including relevant personnel records and medical records) available without impediment for inspection or audit to Government safety and health professionals and their representatives. Electronic access by the Government to this data is acceptable as long as Privacy Act and information security requirements are met. For the purpose of this plan, safety and health documentation includes but is not limited to: logs, records, minutes, procedures, checklists, statistics, reports, analyses, notes, or other written or electronic document which contains in whole or in part any subject matter pertinent to safety, health, or emergency preparedness.

1.11 Review and Modification of Safety Requirements. Recognize in the plan that you may be requested to participate in reviewing and modifying safety requirements that are to be implemented by the Government. This review activity will be implemented at the direction of the COR per established contractual procedures.

1.12 Procurement. Identify procedures used to assure that procurements are reviewed for safety and health compliance considerations and that subcontracts contain appropriate safety criteria and instructions. Include authority and responsibility to assure that NASA safety requirements and tasks are clearly stated (flowed down) in subcontracts.

1.13 Certified Professional Resources. Discuss your access to certified professional resources for safety and health protection and discuss their roles in your safety and health program.

WORKSITE ANALYSIS

Worksite analysis identifies hazards and other safety and health threats to employees and valuable assets. As a minimum, analysis will include primarily the following: developing job hazard analyses for its employees; provisions to protect is employees from hazards in their work areas; inspections of the workplace; investigations of mishaps and close calls; and the submission of safety and health data to the Government.

2.1 ANALYSIS OF Worksite Hazards. . Describe how you will rank, process, and mitigate hazards identified by any of the techniques identified per JPR 1700.1 and ensure that all hazards on NASA property, which are immediately dangerous to life or health, are reported immediately to the Safety and Test Operations Division. For administrative contracts, this is covered by a Job Hazard Analysis for office workers. JSC recommends that the Contractor use the office job hazard analysis at http://www6.jsc.nasa.gov/safety/JHA/docs/OfficeJHA.doc to establish its office safety program. The template may be amended as need; Review the Office JHA periodically with contract personnel and update it as needed. Document and track the reviews so that each contract employee's review is fully demonstrated.

2.1.1 Hazards from nearby operations not in the Contractor's control. Describe how you will assess nearby hazardous operations for potential threats to its employees and establish controls for their mitigation.

2.2 Industrial Hygiene. Describe your industrial hygiene program and how it will be coordinated with the JSC authorities responsible for industrial hygiene at JSC-administered installations. If you use corporate resources to determine workplace exposures, provide copies of all monitoring data to JSC Occupational Health Branch within 15 days of receipt of results.

2.3 Hazard Identification. Describe the procedures and techniques to compile an inventory of hazards associated with the work to be performed on this Contract to include operations and work environments in the vicinity or in close proximity to Contract operations. Report the results to the Government in a manner suitable for inclusion in facilities baseline documentation as a permanent record of the facility. Specific techniques to be considered include:

a. Comprehensive Survey - A "wall to wall" engineering assessment of the Contractor's worksite, which includes the Government furnished facilities to be used by the contractor and the immediate vicinity in which contractual work or tasks will be performed. This assessment encompasses facilities, equipment, materials, and processes.

b. Change (Pre-use) Analysis - Typically addresses modifications in facilities, equipment, processes, and materials (including waste); and related procedures for operations and maintenance

c. Hazard Analysis - May address facilities, systems/subsystems, operations, processes, materials (including waste), and specific tasks or jobs. See JSC 17773, "Preparing of Hazard Analyses for JSC Ground Operations," for analysis contents.

2.3.1 Describe the flow of the findings of the comprehensive survey of hazards into hazard analyses and job hazard analyses and subsequently into controls such as design, operations, processes, procedures, performance standards, and training.

2.4 Inspections. Describe how you will inspect all work areas every three months, in conjunction with civil service inspections.

2.4.1 Describe administrative requirements and procedures regularly scheduled inspections of your assigned areas for hazards including coordination of findings with area supervisors, facility managers, and JSC safety and health representatives as needed. Include how you will record completion of inspections in the JSC Building Inspection Tracking System (BITS). Inspections will identify:

a. Hazards and non-conformances

b. Risk assessment to include the severity and probability of an injury, illness, property damage, or environmental damage.

c. Corrective measures or controls implemented to immediately safe the area and to eliminate or control the hazard and schedules for completion.

d. Notification to persons who may be affected by hazards that pose an imminent or significant risk to safety and health of employees, operations, or facilities.

2.4.2 Describe methods to document inspection findings and corrective actions per Chapter 3.5 of JPR 1700.1.

2.5 Protective Equipment - Describe procedures for obtaining, inspecting, and maintaining all appropriate protective equipment, as required, or reference written procedures pertaining to this subject. Include methods for keeping records.

2.6 Employee Reports of Hazards - Identify methods to encourage employee participation in JSC's Close Call Reporting System to report observed hazardous conditions and events without fear of reprisal. You may implement an internal close call reporting system provided features of JSC's closed call reporting system are adopted and on-site close call information is included in the JSC closed call tracking system and in a manner that does not unnecessarily inhibit employee participation in JSC's Close Call Reporting System.

2.7 Accident and Record Analysis

2.7.1 Mishap Reporting and Investigation. Describe your approach to mishap notification and response, reporting, investigating, and correcting negative findings that are discovered in its investigations. See NPR 8621.1 and JPR 1700.1. Include the following key items from NPR 8621.1 and JPR 1700.1 in the plan:

2.7.1.1 Mishap Notification and Response –Describe how you will ensure prompt notification of mishaps and how it will respond to such notifications. This includes notifying the Safety and Test Operations Division, the Contracting Officer, and the COR immediately under the following circumstances:

a. Fatality, hospitalization, or total or partial permanent disability to one or more persons.

b. Property damage equal to or greater than $500,000.

c. Mishaps involving NASA personnel or NASA property regardless of severity.

d. Any mission failure.

NOTE: The expectation is that employees will notify their managers as soon as possible after a mishap to allow a preliminary investigation to secure the scene, identify witnesses, and to safeguard evidence, personnel or property.

2.7.1.2 Initial Reporting – Describe how you will provide an initial report within 24 hours of the mishap containing basic information that identifies personnel injured, the property damaged or lost, and the name and contact information of the appointing official and investigator. Use NASA Form (NF) 1627 (found at http://jschandbook.jsc.nasa.gov/MishapReporting/NF1627.doc) as a guide for the initial report. This report will be required for:

a. All mishaps and "close calls" involving property damage or first aid (as defined by NPR 8621.1) which occur onsite at a JSC-administered establishment. This includes Government owned and contractor operated facilities.

b. All type A and B mishaps at contractor and third party facilities when the mishap is a direct result of work performed on the contract.

c. All type C property damage mishaps at contractor and third party facilities when the mishap is a direct result of work performed on the contract.

2.7.1.3 Preliminary Investigation. Recognize in the plan that the Government may chose to immediately initiate a preliminary investigation including taking custody of the mishap scene and the collection of witness statements as a prelude to a Government investigation. Factual evidence will be made available for the contractor's investigation at a time to be determined by the Government Investigating authority.

2.7.1.4 Interim Reporting. Describe how you will submit interim reports that bring attention to specific issues such as product safety or performance defects; procedural issues; or other items of an urgent nature requiring an immediate and timely intervention by other parties. You may use your own format for interim reports.

2.7.1.5 Mishap Investigation. Describe how you will investigate all mishaps incurred while performing contract work as required in JPR 1700.1 and NPR 8621.1. Your final report shall identify which parts of the report are proprietary for business reasons or otherwise controlled for reasons of security. The Government reserves the right to initiate release of the report as specified in NPR 8621.1.

2.7.1.6 Corrective Actions. Describe how you will provide a corrective action plan that is traceable to findings, root causes, contributing factors, and recommendations and specific assignee with estimated completion dates. Include how you will notify the Government of completion dates and changes in the schedule. Indicate actions assignable to the Government or other parties.

2.7.1.7 Lessons Learned. Lessons learned are intended to prevent recurrence of undesirable events and to allow NASA and its team members to capitalize to the greatest extent practical on unique successes requiring documented insight for retrieval on demand. Describe your approach for submitting Lessons Learned reports with the following content:

a) Subject - one line subject of the lesson.

b) Lesson Learned - usually one sentence that describes insight gained

c) Description of Event - narrative that describes what happened.

d) Recommendations - may be an action plan, suggestion, etc., that was adopted at event source.

e) Supporting documentation – submit as needed to augment understanding of lesson (photographs with or without pointers and text labels), illustrations, drawings, etc.)

f) Contact name and e-mail address (for follow up by Government before publication of lesson).

2.7.2 Trend Analysis –In support of site-wide trend analysis to be performed by the Government, discuss method of providing the following data:

a. Accident/Incident Summary Report - Accident/Incident Summary Reports as specified on JSC Form 288, “Accident/Incident Statistics” as revised. Negative reports that include exposure hours are also required.

b. Log of Occupational Injuries/Illnesses - For each establishment on and off NASA property that performs work on this Contract, deliver, to the Government, a copy of its annual summary of occupational injuries and illnesses (OSHA 300 and OSHA 300A) as described in Title 29, Code of Federal Regulations, Subpart 1904.5 If you are exempt by regulation from maintaining and publishing such logs, data equivalent to the OSHA log is acceptable.

HAZARD PREVENTION AND CONTROL

Once hazards are identified, they must be eliminated or controlled to lessen the risk to personnel, facilities, and the work environment. This section builds on worksite analysis described in section 2.0 above.

3.1 Describe your approach to eliminating or controlling Identified hazards. In the multiple employer environment of the Center, certain hazards and corrective actions must be collected in a Center wide information system Hazard Abatement Tracking System (HATS) for risk management purposes.

3.2 Appropriate Controls. Discuss approach to consideration and selection of controls as described in chapters 3.2 and 3.5 of JPR 1700.1.

3.3 Reserved.

3.3.1 Reserved.

3.3.2 Reserved.

3.4 Written Procedures. Describe methods to assure that written procedures, which include appropriate hazard controls, are developed for all hazardous operations, including testing, maintenance, repairs, and handling of hazardous materials and hazardous waste. Include how you will ensure that procedures are readily available to personnel as required to correctly perform their duties.

3.5 Reserved.

3.6 Reserved.

3.7 Reserved.

3.8 Reserved.

3.9 Reserved.

3.10 Medical (Occupational Healthcare) Program. Discuss implementation of JSC’s “Clinic First” policy when on site per JPR 1700.1, Chapter 3.6. Include return to work policies and the use of Government provided medical and emergency facilities for the initial treatment of occupational injuries &

illnesses. Discuss your approach to Cardiopulmonary Resuscitation (CPR), Automatic External Defibrillator (AED), first aid, and, return to work policies and the use of Government provided medical and emergency facilities for the initial treatment of occupational injuries and illnesses.

3.10.1 Reserved.

3.11. Hazard Correction and Tracking. Discuss your system for correcting and tracking safety, health, and environmental hazards with particular emphasis on integration with JSC's Hazard Abatement Process (found on line at http://www6.jsc.nasa.gov/safety/hazard/process/default.asp). (The scope is restricted to establishments at JSC, Sonny Carter Training Facility, and Ellington Field.) This includes the following:

3.11.1 Personnel Awareness of Hazards. Discuss your approach to communicate unsafe conditions and approved countermeasures to your employees, the Government, and other Contractors whose personnel may be exposed to these unsafe conditions.

3.11.2. Interim and Final Abatement Plans. Describe how you will approach interim and final abatement of hazards. Describe how you will provide data to the JSC HATS for all hazards within Contractor-occupied facilities that are not finally abated (all interim and final abatement actions completed) within 30 days of discovery. Include the use of JSC Form 1240, "JSC Notice of Safety or Health and Action Plan", or equivalent.

3.12 Disciplinary System. Describe your system for ensuring safety and health discipline in your personnel (including subcontractors). Describe your approach to modifying personnel behaviors when personnel are exhibiting unsafe and unhealthful behavior.

3.13 Emergency Preparedness. Discuss your approach to emergency preparedness and contingency planning which addresses fire, explosion, inclement weather29 CFR 1910.120 (HAZWOPER); and local, regional, and national incidents at JSC as described in JPD 1040.2, JSC Emergency Preparedness Program and JPR 1040.4, JSC Emergency Preparedness Plan. Address how you will protect employees and facilities, and how you will notify JSC emergency forces. Include your pre-planning strategies and how they will be implemented through procedures, training, drills, etc. Identify your methods and schedules to verify emergency readiness. Describe how your employees will be able to locate and be knowledgeable in appropriate emergency action plans. Discuss methods to verify emergency readiness and communicate with employees after an evacuation.

Note: As a minimum, evaluate credible potential emergencies your employees will face, which will include emergencies such as fire evacuations, weather emergencies, workplace violence. Also consider potential of emergencies from nearby operations or emergencies in other areas that your employees routinely visit.

SAFETY AND HEALTH TRAINING

Employees (including management and supervisors) must be trained on the responsibilities to protect themselves and the facilities and operations in which they work. The results of worksite analyses and hazard prevention and control feed the resulting training programs. Timely feedback from trainees is critical to ongoing improvement of training material and course content.

4.1 Describe your training program including identification of responsibility for training employees to assure understanding of safe work practices, hazard recognition, and appropriate responses for protective or emergency countermeasures, including training to meet Federal, State, and Local regulatory requirements.

4.2 Describe your approach to identifying training needs including traceability to exercises such as job safety analyses, performance evaluation profiles, hazard analyses, mishap investigations, trend analyses, etc. Discuss your approach to written exams (a NASA requirement) and other methods to establish trainee proficiency. Include your approach to ensure that training is retained and practiced.

4.3 Describe your approach to training personnel in the proper use and care of personal protective equipment (PPE).

4.4 Discuss tailoring of training toward specific audiences (management, supervisors, and employees) and topics (safety orientation for new hires, specific training for certain tasks or operations). Discuss methods to obtain feedback on the success of the training.

4.5 Reserved.

4.6 Address use of JSC safety and health training resources as appropriate. If you wish to train your personnel in any regulatory mandated training, secure an agreement with JSC Safety and Test Operations Division and the Occupational Health Branch before beginning training. The agreement will ensure consistency safety and health training within JSC’s multiple employer work environment.

4.7 Discuss your approach to making all training materials and training records available to NASA, and other Federal, state, and local agencies for their review upon request.

1. DRD Title	2. Current Version Date	3. DRL Line Item	4. RFP/Contract No.
Total Compensation Plan	October 21, 2013	7	NNJ13471515R/ NNJ14HA04B

5. Use (Define need for, intended use of, and/or anticipated results of data)	6. DRD Category (*check one*)
The Contracting Officer must evaluate the reasonableness of compensation for service contracts in accordance with NFS 1831.205-670.	☐ Technical ☒ Administrative ☐ SR&QA

7. References (*Optional*)	8. Interrelationships (e.g., with other DRDs) (Optional)
FAR 52.222-46, "Evaluation Of Compensation For Professional Employees" FAR 52.237-10, "Identification of Uncompensated Overtime" NFS 1852.231-71, "Determination of Compensation Reasonableness"	

9. Preparation Information (Include complete instructions for document preparation)

Data Type: 2

Scope: The Total Compensation Plan shall identify and discuss wages, salaries, and fringe benefits for professional employees and non-exempt service employees in all proposed labor categories. The Total Compensation Plan and Total Compensation Templates (a) through (e) shall be required for both the prime team members and all subcontractors that meet the criteria in NFS 1852.231-71(d). The Total Compensation Templates shall be provided as part of the Cost/Price Evaluation Factor Volume of the proposal.

Upon approval, the Total Compensation Plan shall become a part of the contract as Attachment J-9.

Content:

1. State the company name(s) of the major subcontractor(s), using the definition found at NFS 1852.231-71(d).

2. Provide the Offeror's (the term, "contractor" shall be used for Total Compensation Plan updates after contract award) company salary range/wage information for each labor classification identified. Describe planned escalations for exempt and non-exempt employees.

3. Discuss the Offeror's company's fringe benefit policies and practices, including leave programs. Differences between fringe benefits offered professional and non-professional employees shall be highlighted. Indicate any differences in fringe benefits among working groups. Inclusive of, but not limited to, address the Offeror's company policy on short and long term disability insurance, and life

insurance, including information on the types of benefits offered, the effective date of coverage and the company share of premium costs. Discuss other salary payment policies, such as vacation leave, sick leave, paid-time off, cost-of-living adjustments, overtime pay, holiday pay, and any other premium pay anticipated.

4. Describe the Offeror's company policy on health insurance coverage, including information on the types of health insurance benefits offered, the company share of premium costs, what co-pays are required, the deductibles, the effective date of coverage, and the anticipated escalation of insurance costs. Also include the Offeror's policy on assuming health insurance coverage for incumbent employees, including pre-existing medical conditions, and the Offeror's policy on spouse and family benefits.

5. Describe the Offeror's policy on retirement/savings plans, including how much the company provides toward the plan and information on vesting.

6. If uncompensated overtime is proposed, it shall be in accordance with FAR 52.237-10, "Identification of Uncompensated Overtime". If proposed, the Offeror shall discuss the effects of uncompensated overtime on the Total Compensation Plan, and provide a discussion as to whether the uncompensated overtime is voluntary or involuntary. Describe the possible effects that uncompensated overtime will have on employee morale and retention. The Offeror shall provide a copy of the company policy for uncompensated overtime with proposal.

7. The Offeror shall describe incentives to motivate and reward performance and to encourage the retention of personnel. The Offeror shall describe the policies, procedures, and experience related to these incentives.

8. Explain how wage/salary ranges were established. Supporting information shall include data, such as recognized national and regional compensation surveys and studies of professional, public and private organizations used in establishing this proposed TCP. The Offeror shall provide written support to demonstrate that its proposed compensation is reasonable.

Format: Contractor's format is acceptable but must include the content listed above.

Distribution:

1. __BH/ Contracting Officer (1 electronic copy and 1 hard copy with signature)

2. __ER/ Contracting Officer's Technical Representative (1 electronic copy and 1 hard copy)

Submission:

i. Initial: Due with proposal

ii. Frequency: Update and submit upon any major TCP changes, and update every three years.

1. DRD Title	2. Current Version Date	3. DRL Line Item No.	4. RFP/Contract No.
Organizational Conflict of Interest (OCI) Plan	February 28, 2012	8	NNJ13471515R/ NNJ14HA04B
5. Use (Define need for, intended use of, and/or anticipated results of data)			**6. Category (Check one)**
To document the Contractor's comprehensive management approach and implementation methods for avoiding, neutralizing, and mitigating organizational conflicts of interest.			☐ Technical ☒ Administrative ☐ SR&QA
7. References (Optional)		**8. Interrelationships (e.g., with other DRDs)(Optional)**	
FAR Subpart 9.5, Organizational and Consultant Conflicts of Interest NFS 1852.209-71, Limitation of Future Contracting NFS 1852.237-72, Access to Sensitive Information NFS 1852.237-73, Release of Sensitive Information			
9. Preparation Information (Include complete instructions for document preparation)			

a. Data Type: 1

b. Scope: The OCI Plan describes the Contractor's comprehensive management approach and implementation methods for avoiding, neutralizing, or mitigating organizational conflicts of interest. After approval, the OCI Plan will become part of the contract.

The OCI portion of the Plan shall address all areas of Clause H.2, NFS 1852.209-71, Limitation of Future Contracting.

c. Content: The OCI Plan shall discuss the following:

(1) Purpose: A summary of the Contractor's rationale for instituting and applying the OCI Plan;
(2) Update Criteria: A description of the criteria and process for determining when an update to the plan is required;
(3) OCI Assessment Methodology: A summary of the general methodology use to avoid, neutralize, or mitigate OCI issues;
(4) OCI Risks: A description of potential OCI risks, due to the Contractor's relationships or potential relationships with the Government, other companies,

and other contracts. The description shall characterize the risk and measures to avoid, neutralize, or mitigate each OCI threat.
(5) Teaming Arrangement: A description of the approach that will be implemented to manage the resources of the vendor or team for conflict situations that may arise during the period covered by the contract.
(6) Teaming Arrangement: A description of potential conflicts of "team" members if a "team" arrangement is being proposed.
(7) Personnel Clearance Procedures: A description of the procedures the Contractor will use if needed to identify and partition Contractor personnel requiring access to or participation in activities that would otherwise create an OCI issue;

(8) OCI Response Procedures: A summary of the steps that the Contractor will take when an OCI has been identified of when circumstances have changed such that an OCI issue is probable; and
(9) OCI Training: A description of the training to be provided to a Contractor personnel regarding potential OCIs on this contract.

d. Format: Contractor format is acceptable. The product shall be in a Microsoft Office compatible format.

e. Distribution:
(1) BH/Contracting Officer (hard and soft copy)
(2) ER/Contracting Officer's Representative (soft copy)

f. Submission:
(1) Initial: Due with proposal
(2) Final: By the end of the contract phase-in period
(3) Approval: Within 30 days of an acceptable OCI Plan
(4) Update Frequency: As required

g. Maintenance: Revisions to this DRD shall be incorporated by change page or complete reissue. The Contractor shall review the OCI Plan on an annual basis or as directed by the Contracting Officer to revise the OCI Plan if necessary. Revisions are subject to Contracting Officer approval.

1. DRD Title:	2.Current Version Date:	3.DRL Line Item No.	4.RFP/Contract No.
IT Security Management Plan (for Contracts using I3P services only)	September 2013	9	NNJ13471515R/ NNJ14HA04B

5. Use (Define need for, intended use of, and/or anticipated results of data)	6. DRD Category: (check one)
Defines IT plans and reports that document the contractor's compliance with Federal and NASA IT regulations and requirements.	☐ Technical ☒ Administrative ☐ SR&QA

7. References (Optional)	8. Interrelationships (e.g., with other DRDs) (Optional)
NPR 2810.1A, NPD 2810.1A, NFS 1852.204-76	

9. Preparation Information (Include complete instructions for document preparation)

The contractor shall prepare the data delivery as follows:

SCOPE:

The contractor shall submit an IT security management program plan for its unclassified technology information resources. This program plan shall describe the processes and procedures that will be followed to ensure appropriate security of IT resources that are developed, processed, or used under this contract. The Contractor's IT security management program plan shall be compliant with the IT security requirements in accordance with Federal and NASA policies as referenced in OMB Circular A-130 (Management of Federal Information Resources), and NPR 2810.1A (Security of Information Technology). See the CIO-Procurement Website for any supporting documentation.

CONTENT:

The following provides guidance for contracts that contain no IT work and where IT equipment and support is provided by NASA or another NASA contract.

IT Security Management Plan (ITSMP) – Normally an ITSMP is required to be delivered at the beginning of a contract. For "non-IT" contracts it is not required. In its place the following requirements are established.

- All employees under the contract shall take the NASA IT Security Annual Awareness Training accessible in SATERN. Completion of the training shall be accomplished annually not later than the due date established by NASA each year. NASA may request periodic statuses on the number of employees who have completed the yearly training.
- Any employee who knows *or suspects* a cyber security incident has occurred shall notify NASA immediately. Notification may be to the NASA organization computer security official (OCSO can be found at http://ird.jsc.nasa.gov/ITSecurity/Lists/OCSO/ocsolist.aspx), or the JSC IT Security Duty Phone, 281-844-0248, or to the NASA Security Operations Center, 877-NASA-SEC. This should be reviewed independently with employees yearly outside of the Satern training.

1. DRD Title	2. Current Version Date	3. DRL Line Item No.	4. RFP/Contract No.
Reprocurement Data Package	June 11, 2012	10	NNJ13471515R/ NNJ14HA04B

5. Use (Define need for, intended use of, and/or anticipated *results of data)*	6. DRD Category (check one)
See scope / use statement in Block 8 Provides requirements for delivery to NASA of information on specific items and supporting documentation related to analytical models, tools, data systems, web-sites, equipment, and data items acquired, produced, or maintained during the performance of this contract, and resource/cost information to be used for reprocurement activities.	☒ Technical ☐ Administrative ☐ SR&QA

7. References (Optional)	8. Interrelationships (e.g., with other DRDs) (Optional)
52.227-14, Rights in Data – General; Alternate V	

9. Preparation Information (Include complete instructions for document preparation)

A. CONTENTS:

Catalog of Items

1. A catalog of all models, tools, data systems, web-sites, equipment, and data items acquired, produced, or maintained during the performance of this contract shall be developed which contains the following information:
   a. Unique name of item
   b. Version number, revision number, or release date as appropriate
   c. Brief description and purpose or use of item
   d. Location of electronic or physical item
   e. Number of licenses of each COTS Software if applicable

2. Supporting documentation shall be submitted for the use of each item. The documentation shall include, at a minimum, the following information:
   a. Inputs required
   b. Governing assumptions or constraints, including definition of the configuration if pertinent to the model definition or its use
   c. Acceptance or certification history, including description of validation methods used
   d. Association or interrelationship with other items listed
   e. Application or operating system requirements
   f. Hardware/platform requirements

Resource/Cost Information

A data package shall be submitted containing the following resource/cost information:

1. Labor Resources
   a. List of all direct labor skills by labor category, segregated by current work breakdown structure (WBS)
   b. List of all small business areas of responsibility by labor category, segregated by task order
   c. Estimate of the number of indirect labor skills such as business or computer support normally charged through an indirect expense pool or through a service center expense normally charged through an indirect expense pool or through a service center expense
   d. Current annual average straight time labor rates for all skills by labor category mapped by standard labor categories of the original RFP or the standard labor categories defined in the follow-on RFP if they differ from the original RFP and when these wages were last adjusted for escalation. Also indicate whether any adjustments are projected to be made prior to contract expiration
   e. Number of Full Time Equivalents (FTEs) and the estimated number of productive hours for each labor category currently on contract mapped by standard labor category of the original RFP or the standard labor categories defined in the follow-on RFP if they differ from the original RFP, segregated by current WBS.
   f. Seniority level of all skills on the current contract
2. Non-Labor Resources

   a. List of all materials, equipment, travel, supplies, etc., and the incurred annual cost by WBS.
   b. Provide a discussion associated with the major items identified above, such as the materials estimate includes a prompt payment discount of TBD% due to large volume discounts you have negotiated with your vendors.

3. Liability Cost

   a. The projected liability cost associated with unused accrued paid leave associated with non-exempt personnel.
   b. Provide a copy of any Collective Bargaining Agreements in place and a current status of any upcoming negotiations with a union.
4. Contractor-Owned Equipment

   a. List of all Contractor-owned equipment (at the time of delivery of this DRD) being used in the performance of the contract.
   b. The list of equipment shall include:
      i. Description of the equipment (include make and model #)
      ii. Location of the equipment (address, building, and room #)
      iii. Date purchased
      iv. Purchase price of the equipment
      v. Current depreciated value of the equipment

B. FORMAT:
Electronic format of all submissions shall be compatible with JSC desktop standard applications. Organizational format of the supporting documentation shall be the Contractor's format.

C. MAINTENANCE:
All items, documentation, and data shall be maintained electronically. All documentation developed to support the use of each item shall also be maintained electronically. Both the items and supporting documentation shall be updated as necessary to perform the functions for which they were developed.

D. COPIES/DISTRIBUTION:
Distribution shall be in accordance with the DRL.

1. DRD Title	2. Current Version Date	3. DRL Line Item No.	4. RFP/Contract No.
Environmental and Energy Consuming Product Compliance Reports	May 8, 2013	11	NNJ13471515R/ NNJ14HA04B

5. Use (Define need for, intended use of, and/or anticipated results of data) data)	6. DRD Category: (check one)
Used to complete JSC's required annual report to NASA HQ on affirmative procurement, waste reduction, energy efficient product procurement, and ozone depleting substances.	☐ Technical X Administrative ☐ SR&QA

7. References (Optional)	8. Interrelationships (e.g., with other DRDs) (Optional)
JPR 8550.1, JSC Environmental Compliance Procedural Requirements; JPR 8553.1, JSC Environmental Management System	

9. Preparation Information (Include complete instructions for document preparation)

This report is submitted annually for the previous fiscal year activities. If the contract is for only a portion of the fiscal year, this report shall be submitted for that portion of the fiscal year.

When a contract ends or is terminated prior to the end of a fiscal year, the Contractor shall provide this report for the activities performed for that portion of the fiscal year that the contract was in place and the report shall be submitted within 30 days of the contract end date.

For Section I and III, where the Contractor does not purchase any designated product during the fiscal year, the report shall be a statement to that effect.

For Section IV, if the Contractor does not purchase, own, operate, maintain, or repair ODS equipment on-site ; or does not store, purchase or use ODS chemicals, the report shall be a statement to that effect.

Fiscal year is the Federal Government fiscal year and is defined as October 1 through September 30.

I. Annual Sustainable Acquisition Report

The Contractor shall track and report each December 1 to the JSC Environmental Office the following information regarding the purchase by the Contractor (including subcontracts) of all products on the U. S. Environmental Protection Agency's Comprehensive Procurement Guideline list and items on the USDA Farm Bill Biobased list:

a. The total amount of each item purchased during the previous fiscal year in $,

b. The total amount of each listed item purchased during the previous fiscal year that contained at least the minimum recommended percenatges of recycled content or biobased content during the fiscal year in $,

c. The total amount of each listed item purchased during the previous fiscal year that contained some recycled content or biobased content but less than the minimum recommended percentages of recycled content or biobased content during the fiscal year in $,

d. The number of waivers and the name of the item each waiver was requested for submitted to the Environmental Office during the previous fiscal year,

e. The total amount purchased for each waivered item during the previous fiscal year in $, and

f. A narrative explanation of constraints for purchasing each item that did not meet affirmative procurement or biobased content requirements during the previous fiscal year.

The JSC Environmental Office will provide an electronic spreadsheet to submit the Annual Sustainable Acquisition portion of this DRD. Contact the Environmental Info line at 281-483-6207 or send an email to JSC-Environmental-Office@nasa.gov to get a copy of this spreadsheet.

II. a Waste Reduction Activity Report

The Contractor shall track and report each December 1 to the JSC Environmental Office any new process improvements or programs undertaken by the Contractor (or subcontractors) that have contributed to waste reduction during the previous fiscal year. Waste reduction means preventing or decreasing the amount of waste being generated through waste prevention, recycling, or purchasing recycled and environmentally preferable products. This may be done through recycling* or waste prevention**. *This may be accomplished through source reduction and/or by increasing reuse and recycling of items that would normally go to the landfill (trash).* The information will be included in JSC's annual report to NASA HQ on waste reduction activities. Limit responses to one page or less per item. The response should include a description of the activity, the materials or wastes reduced, an estimated volume or weight of reduction, and a contact name and phone number for a person knowledgeable about the reduction activity.

* Recycling means the series of activities, including collection, separation, and processing by which products or other materials are recovered from the solid waste stream for use in the forms of raw materials in the manufacture of products other than fuel for producing heat or power by combustion.

**Waste prevention means any change in the design, manufacturing, purchase, or use of materials or products (including packaging) to reduce their amount or toxicity before they are discarded. Waste prevention also refers to the reuse of products or materials.

II. b For Construction/Facility Modification Contracts Only:

The Contractor shall track and report to the JSC Environmental Office the total weight in pounds of material sent to the landfill (this does not include shipments managed and paid for by the Environmental Office or their support contractor) and the total number of pounds of material recycled by media (scrap metal, wood, concrete, soil). The report is due within 30 days of completion of all waste generating and recycling activities or of final waste shipments associated with the project and

with the project and in no case later than completion of the contract.

III. Annual Energy Efficiency Product Procurement Report

The Contractor shall report to the JSC Energy Manager, on December 1 of each year, information on purchases of energy consuming products made by the Contractor (including subcontracts) beginning upon contract start. This includes the purchase of premium efficiency motors and efficiency lighting covered by the Energy Policy Act of 2005. The report shall provide the following:

a. A list of all energy consuming products purchased during the previous fiscal year.

b. The total purchase cost of each item on the list.

c. A designation of which items were Energy Star or Federal Energy Management Program (FEMP)-sanctioned.

d. For each Energy Star or FEMP-sanctioned product purchased, provide:

i. The simple payback value as determined by the contractor's life cycle cost analysis.

ii. The annual savings in dollars and BTUs due to the purchase of the item

e. Metrics which show the effectiveness of the contractor's purchases

i. Percentage of purchased products that are Energy Star and FEMP-sanctioned against the total number of energy consuming products purchased.

ii. Total dollar value of the purchased products that are Energy Star and FEMP-sanctioned against the total dollar value of all energy consuming products purchased.

IV. Ozone Depleting Substances (ODS) Reports

The Contractor shall track and report each December 1 to the JSC Environmental Office the following information for the previous fiscal year related to ODS equipment that the contractor purchases, owns, operates, maintains, or repairs on-site:

a. A list of the names of all EPA-Certified service technicians employed and their certification dates

b. A list of any ODS recovery/recycling equipment that will be used and copy of the 40 CFR 82.162 EPA registration

c. A list of any refrigeration/air conditioning units with a full charge of more than 50 pounds, not previously reported, including

i. any identifying equipment numbers

ii. the location of the equipment (building/room)

iii. the owning organization or contract name and number

iv. a narrative description of the equipment.

v. refrigeration or air conditioning equipment with a full charge of > 50 pounds, permanently removed from service during the year.

d. For each ODS chemical stored, purchased or used, track and report each December 1 for the previous fiscal year:

i. ODS Chemical Name;
ii. Quantity stored (pounds);
iii. Quantity purchased (pounds); and
iv. Quantity used (pounds).

Submit one electronic copy of the I. Annual Sustainable Acquisition Report via the spreadsheet provided by the Environmental Office. The remainder of the report may be submitted in an electronic or hard copy in the format determined by the Contractor as long as all required elements are included.

Distribution:

1 copy to JSC Environmental Office

1 copy to Contracting Officer

1 copy to Contracting Officer's Technical Representative

1. DRD Title	2. Current Version Date	3. DRL Line Item No.	4. RFP/Contract No.
Government Property Management Plan	July 16, 2013	12	NNJ13471515R/ NNJ14HA04B

5. Use (Define need for, intended use of, and/or anticipated results of data)	6. DRD Category
To describe the method of administering and controlling Government property.	☐ Technical ☒ Administrative ☐ S&MA

7. References (Optional)	8. Interrelationships (e.g. with other DRDs)(Optional)
FAR 52.245-1, Government Property NFS 1852.245-80, Government Property Management Information	

9. Preparation Information (Include complete instructions for document preparation)

A. DATA TYPE: 1

B. SCOPE:
The Government Property Management Plan defines the Contractor's use, maintenance, repair, protection, and preservation of Government personal property. It shall describe the Contractor's approach to receiving, handling, stocking, maintaining, protecting and issuing Government property (equipment and material). The Plan should include interaction and Department/ Office responsibilities. The delegated Government Property Administrator will request detailed supplemental procedures, which are separate from this plan, after the contract start date.

Upon approval by the Government, the plan shall become a part of the contract as Attachment J-11, Government Property Management Plan.

C. CONTENT:
This plan shall reference those policies and procedures which are part of the Contractor's Property Management System and shall include at a minimum the following functions/outcomes:

1. Property Management
2. Acquisition of Property
3. Receipt of Government Property
    (a) Receiving
    (b) Identification
4. Records of Government Property
5. Physical Inventory
6. Subcontractor Control
7. Reports
8. Relief of Stewardship
    (a) Consumed/Loss, Theft, Damage, Destruction
    (b) Delivered
    (c) Contractor Inventory Disposal
    (d) Abandonment of Government Property (if directed by the Government)

9. Utilizing Government Property
    (a) Utilization
    (b) Consumption
    (c) Movement
    (d) Storage

10. Maintenance
11. Property Closeout
12. Reconcile Contractor Records with NASA Financial Property Records (NASA Form 1018 and CHATS if applicable)
13. JSC-Unique Considerations (as they arise or known now)

D. FORMAT:
Contractor format is acceptable. The product shall be in a Microsoft Office compatible format.

E. SUBMISSION:
See Attachment J-02, Data Requirements List.

F. DISTRIBUTION:
(a) Initial – Due with proposal
(b) Final- Due 30 days after contract award

G. MAINTENANCE: Revisions to this DRD shall be incorporated by change page or complete reissue. The Contractor shall review the Government Property Management Plan as directed by the Contracting Officer and revise the plan, if necessary. Revisions are subject to Contracting Officer approval.

1. DRD Title	2. Date of current version	3. DRL No.	4. RFP/Contract No.
Reports Required for Logistics	August 17, 2013	13	NNJ13471515R/ NNJ14HA04B

5. Use (Define need for, intended use of, and/or anticipated results of data)	6. DRD Category: (check one)
These reports are required to determine the effectiveness of the Property Management System and as indicators of the volume of logistics activity.	☐ Technical ☒ Administrative ☐ S&MA

7. References (Optional)	8. Interrelationships (e.g., with other DRDs)

9. Preparation Information (Include complete instructions for document preparation)

A. SCOPE:

The following reports are required when on-site storage of program stock totaling $75,000 or greater is in one location.

B. CONTENT:

1. Data Input for NASA Form 1324, Semiannual Report of Personnel Property Management Operations (also called the Semi-annual Report of Personal Property Operations or Data for Semiannual Report of Contractor Supply Operations):
   This semi-annual report defines the following line item data elements as of March 15 and September 15 of each year:
   a. Material Inventory Status
   b. Material Inventory Activity
   c. Material Acquisition
   Activity d. Material
   Receiving Activity
   e. Logistics Personnel Resources Report
   Reference: NPR 4100, NASA Materials Inventory Management Manual
   Due Dates: March 25 and September 25

2. Data Input for NASA Form 1489, Semiannual Analysis of Inventory Report (also called the Analysis of Physical Inventory Report or Data for Semiannual Report of Analysis of Fixed Inventory Assets):
   a. This semi-annual report defines the following monetary data elements as of March 15 and September 15 of each year. b. Starting Price: Price of Receipts, Price of Issues, Ending Price
   Note: This will be reported by each Object Class Code stocked in the storeroom. Separate reports are required for Stores, Programs and Standby stock (see the JSC Stocks Stock Catalog prefaces for a detailed explanation of these codes).
   c. Reference: NPR 4100, NASA Materials Inventory Management Manual
   Due Dates: March 25 and September 25

3. NASA Form 1619, Physical Inventory of Materials Annual Report:
   This annual report identifies the sampling inventory actions completed by the Contractor. This report contains the following data by Object Class Code (see the JSC Stores Stock Catalog preface for a detailed explanation of these codes.) a. Line items and dollar value of items inventoried.
   b. Number of line items with variance.

c. Dollar value of discrepant items, including overage, shortage, and gross discrepancies.
d. Identify whether inventory items are stores, program, or standby stock, and also identify the staff hours and dollar value expended in accomplishing and reconciling the inventory.
e. A brief explanation of cause, of discrepancies, and actions to minimize the chance for recurrence.

Due Date: September 25

Note: Contractor-Acquired Material (CAM) and Government Furnished Material are to be inventoried and reported together for the purposes of this report.

4. Quarterly Report of Contractor-Acquired Material (CAM): This report will consist of two transfer documents (DD Form 1149) that identify material purchased, and received by the Contractor for on-site use. The two documents will be differentiated as follows:
   a. Items bought for direct consumption on site.
   b. Items issued to storeroom(s) that will impact the dollar value of assets on hand.

   The DD 1149 will be transferring accountability of these assets to NASA and will be accompanied by requisitions, issue documents, engineering work orders (if flight material destined for a bond room), or any other similar form approved for use by the JSC Property Administrator. The DD 1149 shall identify the total number of line items and the total value.

   Due Date: 15 working days after the end of the Quarter/Fiscal Year

5. Annual Report of Exchange/Sale:
   a. As defined by the NASA Property Administrator (PA).

   Due Date: 15 days after the end of each Government Fiscal Year if required by the NASA PA

C. FORMAT:

1. Forms for data input for the NASA Form 1324 and 1489 are available through JB3/Contract Property Management Branch web page under "Reporting Support". http://www6.jsc.nasa.gov/ja/jb/jb3.cfm
2. Other forms shall be completed as specified above or as specified by the NASA PA.

D. MAINTENANCE:

See Data Requirements List (DRL).

E. DISTRIBUTION:

Distribution shall be in accordance with the DRL.

F. APPLICABLE DOCUMENTS:

N/A

ATTACHMENT J-4 IT SECURITY PLAN

Approved plan to be inserted upon contract award.

ATTACHMENT J-5 SAFETY AND HEALTH PLAN

Approved plan to be inserted upon contract award.

ATTACHMENT J-6 PIV CARD ISSUANCE PROCEDURES

PIV Card Issuance Procedures in accordance with FAR clause 52.204-9, Personal Identity Verification of Contractor Personnel

FIPS 201 Appendix A graphically displays the following procedure for the issuance of a PIV credential.

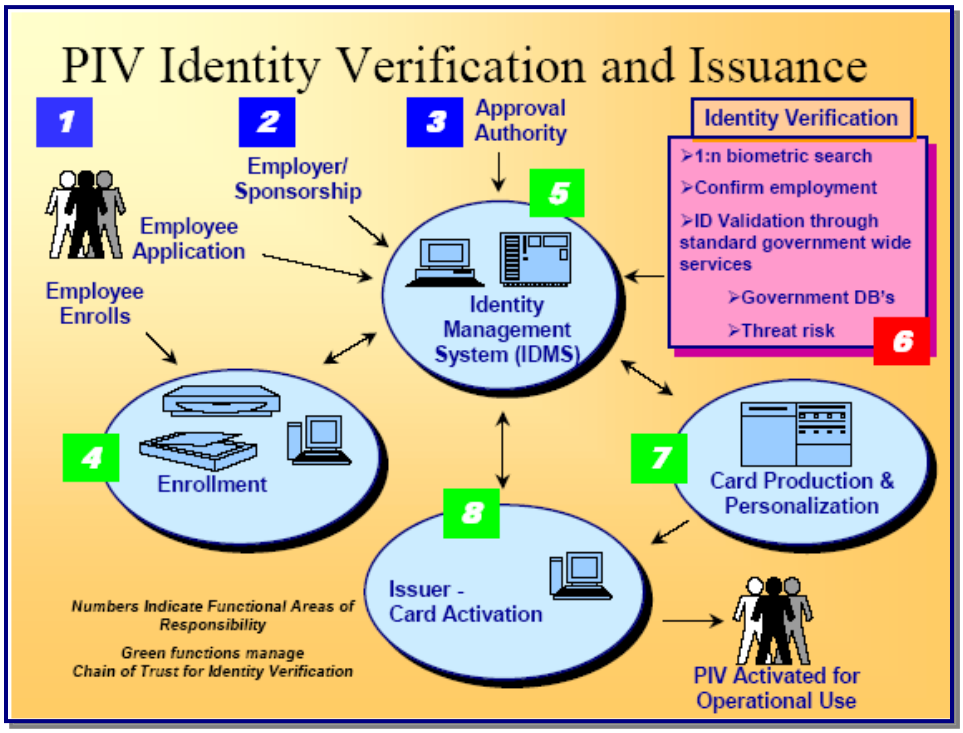

Figure A-1, FIPS 201, Appendix A

The following steps describe the procedures for the NASA Personal Identity Verification Card Issuance (PCI) of a PIV credential:

Step 1:
The Contractor's Corporate Security Officer (CSO), Program Manager (PM), or Facility Security Officer (FSO) submits a formal letter that provides a list of contract employees (applicant) names requesting access to the NASA Contracting Officer's Technical Representative (COTR). In the case of a foreign national applicant, approval through the NASA Foreign National Management System (NFNMS) must be obtained for the visit or assignment before any processing for a PIV credential can take place. Further, if the foreign national is not under a contract where a COTR has been officially designated, the foreign national will provide the information directly to their visit/assignment host, and the host sponsor will fulfill the duties of the COTR mentioned herein. In each case, the letter shall provide notification of the contract or foreign national employee's

(hereafter the “applicant”) full name (first, middle and last), social security number (SSN) or NASA Foreign National Management System Visitor Number if the foreign national does not have a SSN, and date of birth. If the contract employee has a current satisfactorily completed National Agency Check with Inquiries (NACI) or

an equivalent or higher degree of background investigation, the letter shall indicate the type of investigation, the agency completing the investigation, and date the investigation was completed. Also, the letter must specify the risk/sensitivity level associated with the position in which each applicant will be working (NPR 1600.1, §4.5 is germane) Further, the letter shall also acknowledge that contract employees may be denied access to NASA information or information systems based on an unsatisfactory background investigation/adjudication. .

After reviewing the letter for completeness and concurring with the risk/sensitivity levels, the COTR/host must forward the letter to the Center Chief of Security (CCS). The CCS shall review the OPM databases (e.g, DCII, PIP, et al.), and take appropriate steps to validate the applicant’s investigation status. Requirements for a NACI or other investigation shall be initiated only if necessary.

Applicants who do not currently possess the required level of background investigation shall be directed to the e-QIP web site to complete the necessary background investigation forms online. The CCS shall provide to the COTR/host information and instructions on how to access the e-QIP for each contract or foreign national employee requiring access

Step 2

Upon acceptance of the letter/background information, the applicant will be advised that in order to complete the investigative process, he or she must appear in-person before the authorized PIV registrar and submit two forms of identity source documents in original form. The identity source documents must come from the list of acceptable documents included in Form I-9, Employment Eligibility Verification, one which must be a Federal[1] or State issued picture identification. Fingerprints will be taken at this time. The applicant must appear **no later than** the entry on duty date.

When the applicant appears, the registrar will electronically scan the submitted documents; any document that appears invalid will be rejected by the registrar. The registrar will capture electronically both a facial image and fingerprints of the applicant. The information submitted by the applicant will be used to create or update the applicant identity record in the Identity Management System (IDMS).

[1] A non-PIV government identification badge, including the NASA Photo Identification Badge, MAY NOT BE USED for the original issuance of a PIV vetted credential

Step 3:
Upon the applicant's completion of the investigative document, the CCS reviews the information, and resolves discrepancies with the applicant as necessary. When the applicant has appeared in person and completed fingerprints, the package is electronically submitted to initiate the NACI. The CCS includes a request for feedback on the NAC portion of the NACI at the time the request is submitted.

Step 4
Prior to authorizing physical access of a contractor employee to a federally-controlled facility or access to a Federal information system, the CCS will ensure that a check has

been performed with the National Crime Information Center (NCIC) with an Interstate Identification Index check is/has been performed. In the case of a foreign national, a national check of the Bureau of Immigration and Customs Enforcement (BICE) database will be performed for each applicant. If this process yields negative information, the CCS will immediately notify the COTR/host of the determination regarding access made by the CCS.

Step 5
Upon receipt of the completed NAC, the CCS will update IDMS from the NAC portion of the NACI and indicate the result of the suitability determination. If an unsatisfactory suitability determination is rendered, the COTR will advise the contractor that the employee is being denied physical access to all federally-controlled facilities and Federal information systems.

Based on a favorable NAC and NCIC/III or BICE check, the CCS will authorize the issuance of a PIV federal credential in the Physical Access Control System (PACS) database. The CCS, based on information provided by the COTR/host, will determine what physical access the applicant should be granted once the PIV issues the credential.

Step 6:
Using the information provided by the applicant during his or her in-person appearance, the PIV card production facility creates and instantiates the approved PIV card for the applicant with an activation date commensurate with the applicant's start date.

Step 7:
The applicant proceeds to the credential issuance facility to begin processing for receipt of his/her federal credential.

The applicant provides to the credential issuing operator proof of identity with documentation that meets the requirements of FIPS 201 (DHS Employment Eligibility Verification (Form I-9) documents. These documents **must** be the same documents submitted for registration.

The credential issuing operator will verify that the facial image, and optionally reference finger print, matches the enrollment data used to produce the card. Upon verification of identity, the operator will locate the employee's record in the PACS database, and modify the record to indicate the PIV card has been issued. The applicant will select a PIN for use with his or her new PIV card. Although root data is inaccessible to the operator, certain fields (hair color, eye color, et al.) may be modified to more accurately record the employee's information.

The applicant proceeds to a kiosk or other workstation to complete activation of the PIV card using the initial PIN entered at card issuance.

ALTERNATIVE FOR APPLICANTS WHO DO NOT HAVE A COMPLETED AND ADJUDICATED NAC AT THE TIME OF ENTRANCE ON DUTY

Steps 1 through 4 shall be accomplished for all applicants in accordance with the process described above. If the applicant is unable to appear in person until the time of entry on duty, or does not, for any other reason, have a completed and adjudicated NAC portion of the NACI at the time of entrance on duty, the following interim procedures shall apply.

1. If the documents required to submit the NACI have not been completed prior to EOD, the applicant will be instructed to complete all remaining requirements for submission of the investigation request. This includes presentation of I-9 documents and completion of fingerprints, if not already accomplished. If the applicant fails to complete these activities as prescribed in NPR 1600.1 (Chapters 3 & 4), it may be considered as failure to meet the conditions required for physical access to a federally-controlled facility or access to a Federal information system, and result in denial of such access.

2. Based on favorable results of the NCIC, the applicant shall be issued a temporary NASA identification card for a period not-to-exceed six months. If at the end of the six month period the NAC results have not been returned, the agency will at that time make a determination if an additional extension will be granted for the temporary identification card.

Upon return of the completed NAC, the process will continue from Step 5.

ATTACHMENT J-7 TASK ORDER PLACEMENT

This attachment will be updated upon each Task Order and/or Task Order revision issued.

EXAMPLE:

CONTRACT NUMBER: TBD		**CONTRACTOR: TBD**			
			COST	**FEE**	**TOTAL**
CONTRACT VALUE:		Task Order 1			
NTE:	$143,000,000.00				
Fee: TBD					

ATTACHMENT J-8 SMALL BUSINESS SUBCONTRACTING PLAN/SDB TARGET APPROACH

Contractor's Small Business Subcontracting Plan as required by FAR 52.219-9 (SEPT 2006) - (Alternate II (OCT 2001), shall be inserted after NASA approval.

For Large Businesses the Small Business Subcontracting Plan Approach will be incorporated in this Attachment.

Small Businesses are not required to submit a Small Business Subcontracting Plan.

ATTACHMENT J-9 TOTAL COMPENSATION PLAN

Approved plan to be inserted upon contract award.

ATTACHMENT J-10 GOVERNMENT PROPERTY MANAGEMENT PLAN

Approved plan to be inserted upon contract award.

ATTACHMENT J-11 ORGANIZATIONAL CONFLICT OF INTEREST AVOIDANCE PLAN

Approved plan to be inserted upon contract award.

ATTACHMENT J-12 ACRONYM LIST

ACU – Arm Computer Unit
AFMD – Aeroscience & Flight Mechanics Division (aka EG)
AGEA - Advanced Graphics for Engineering Applications
ALHAT - Autonomous Landing Hazard Avoidance Technology
API - Application Programming Interface
BDT – Binary Data Transfer
C&DH – Command & Data Handling
CCS – Command and Control System
CEV – Crew Exploration Vehicle
CFE – Core Flight Executive
CFS – Core Flight Software
CM – Configuration Management
CMMI – Capability Maturity Model Integration
cPCI – Compact Peripheral Component Interconnect
CR – Change Request
CRCP – Computer Resources Control Panel
CSA – Canadian Space Agency
DOUG – Dynamic Onboard Ubiquitous Graphics
DST – Dynamic Skills Trainer
EA – organization code for Engineering Directorate
EG – organization code for the Aeroscience and Flight Mechanics Division
EGSE - Electrical Ground Support Equipment
EP – Equivalent Persons
ER – organization code for Software, Robotics, & Simulation Division
ER7 – organization code for Simulation & Graphics Branch
EVA – Extra-Vehicular Activity
FSW – Flight SoftWare
FTRR – Flight Test Readiness Review
GB - Gigabit
GCAR – Government Certification Acceptance Request
GN&C – Guidance, Navigation, & Control
GPS – Global Positioning System
GUI – Graphical User Interface
GUNNS – General Use Nodal Network Solver
HAST – Hardware-in-the-loop ALHAT System Testbed
HDS – Hazard Detection System
HIL – Hardware-In-the-Loop
HLA - High Level Architecture
HOTH – Houston Orion test Hardware
ICDS – Interactive Control and Dynamics Simulation
IEEE – Institute of Electrical and Electronic Engineers
IO – Input/Output
ISP – Information Sharing Protocol

ISS – International Space Station
IT – Information Technology
IV&V – Independent Verification and Validation
JCS – Joint Control System
JSC – Johnson Space Center
KSC – Kennedy Space Center
LCS – LEU Control Software
LEE – Latching End Effector
LEU – LEE Electronic Unit
MAGIK – Manipulator Analysis – Graphic, Interactive, Kinematic
MBDyn – Multibody Dynamics
MBS – Mobile Base System
MCC – Mission Control Center
MOD – Mission Operations Directorate
MPCV - Multi-Purpose Crew Vehicle
MSS – Mobile Servicing System
NASA – National Aeronautics & Space Administration
NPR – NASA Procedural Requirements
NSTL - Navigation System Test Lab
OCS – Operations Control Software
ODN-R - Orion Data Network Recorder
OS – Operating System
PCI – Peripheral Component Interconnect
PCS – Portable Computing System
PDU - Power and Data Units
PLATO - Partition Level Application Test for Orion
PSR - Project Status Review
PXI – PCI eXtensions for Instrumentation
RCS – Reaction Control System
RPOC – Rendezvous Proximity Operations and Capture
RTI – Run Time Interface
SACS – SSRMS ACU Control Software
SEI – System Engineering and Integration
SES – Systems Engineering Simulator
SEPG – Software Engineering Process Group
SOCRRATES – Software Only CEV Risk Reduction Analysis and Test Engineering Simulator
SOW – Statement of Work
SPDM – Special Purpose Dexterous Manipulator
SR&SD – Software, Robotics, & Simulation Division (aka ER)
SRWS – SSRMS Robotics WorkStation
SSET - Spacecraft Software Engineering Team
SSRMS – Space Station Remote Manipulator System
SSTF – Space Station Training Facility
T&V – Test and Verification
TIAB – Trick in a Box

TS21 – Training Systems for the 21st century
VEU – VTB EGSE Unit
VMC – Vehicle Main Computer
VR – Virtual Reality
VTB – VMC Test Bed
VV – Visiting Vehicle
VSM – Vehicle System Management
WBS – Work Breakdown Structure

ATTACHMENT J-13 LIST OF APPLICABLE DOCUMENTS

This Attachment contains applicable documents for the contract effort. The contractor shall comply with these requirements in performing Statement of Work (SOW) activities. Requirements written in these documents shall have full force and effect as if their text were written in this contract to the extent that the requirements relate to the context of the work to be performed within the scope of this contract.

Document Number	Document Title
EA-WI-025 Rev C	GFE Flight Project Software and Firmware Development
EA-WI-035	Software Project Management and Development
JPR 7150.2	JSC Procedural Software Engineering Requirements
JSC-61815-PD	Spacecraft Software Engineering Team Product Development Process Description
JSC-61811-SPI	SSET Software Process Improvement Plan
JSC-61813-PM	Spacecraft Software Engineering Team Project Management Process Description
JSC-61814-CM	Spacecraft Software Engineering Team Configuration Management Process Description
JSC-61816-MA	Spacecraft Software Engineering Team Measurement and Analysis Process Description
JSC-61817-PPQA	Spacecraft Software Engineering Team Process and Product Quality Assurance Process Description
JSC-61818-DAR	Spacecraft Software Engineering Team Decision Analysis and Resolution Process Description
JSC-61819-A OT	Spacecraft Software Engineering Team Training Process Description
JSC-61835-SAM	Software, Robotics, and Simulation Division Engineering Acquisition Management Process
NASA-STD-7009	NASA Standard for Models and Simulations
NASA-STD-8719.13B	Software Safety Standard
NASA-STD-8739.8	Software Assurance Standard
NID 7120.99	NASA Information Technology and Institutional Infrastructure Program and Project Management Requirements
NPR 7120.5E	NASA Space Flight Program and Project Management Requirements
NPR 7123.1B	NASA Systems Engineering Processes and Requirements
NPR 7150.2A	NASA Software Engineering Requirements

[END OF SECTION]